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The proceedings consider special education programs for the multiply handicapped. Papers describe a case study in community challenge, California trends for services, the multihandicapped deaf child, the process of curriculum development, persistent educational problems, prescriptive teaching as an integration process, the clinician-educator, and educational planning. Panel discussions treat special programs, parental problems, innovations in teacher preparation, legislative needs, and problems confronting public schools in providing special services. (LE)

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California State Department of Education

Division of Special Schools and Services

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Proceedings of the

Special Study Institute for the Multihandicapped

October 9-13, 1967

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Foreword

This institute emphasized the promotion of special education programs for the multihandicapped children in California. The precise number of these children is not known but it is realized that many multihandicapped children are in need of special assistance.

Ways in which the number of mulithandicapped children could be learned, the formulation of plans leading to the establishment of special programs under existing regulations, the identification of problems needing to be resolved, and the development of a basis for seeking needed legislation and financial support were discussed. School administrators, special teachers, parents, and community leaders should profit from studying the information and ideas presented.

Appreciation is expressed to Alexander L. Britton, Alfred L. Lazar, and Alfred I. Schmidt of California State College at Long Beach for their part in planning and conducting this special study institute. The contributions of members of the coordinating committee and of the California State Department of Education also were instrumental in making the institute a success.

Introduction

Wayne D. Lance, Ed.D.
Associate Professor of Education, University of Oregon

Meeting the needs of exceptional children has been a concern of educators and members of other professions in the state of California for many years. Provisions have consistently improved for handicapped children and youth and a number of programs within the state are looked upon as models by both special educators and parents.

Yet, even with the increases in state and local support and the prospect of greater financial participation by the federal government, there remains in many sections of the state a group of children receiving less than adequate services. These children and youth are the multihandicapped. Pupils with one handicap, such as those who are blind or deaf, find suitable educational programs, often close to their homes. Those who are both deaf and blind, or crippled and mentally retarded, or others with varying combinations of handicaps may find themselves with few, if any services from the public schools. Thus, the California State Department of Education chose to focus the attention of its educators upon this problem. In the fall of 1967 a special study institute for the multihandicapped was planned with the support of the United States Office of Education.

The goals of this institute were as follows:

- To provide the State Department of Education with a clear picture of the number of multihandicapped children needing special education programs
- To formulate plans that will lead to the immediate establishment under

existing circumstances of some special education programs for these children

- To identify the problems that needed to be resolved to provide all such children the necessary special education programs, and

- To develop the basis for seeking need legislation authorization and financial support.

It was apparent during the course of the institute that many excellent services were already being provided for multihandicapped children within the state—some by local and county school districts, some by state residential institutions, and some by parent-sponsored and private schools or agencies. Participants from college and university teacher preparation programs reported that they had been considering ways of preparing teachers for the increasing number of multihandicapped children. The State Department of Education and the State Legislature had indeed made considerable progress toward achieving the means for helping to finance and administer special programs for the multihandicapped.

What progress had been made seemed overshadowed by the prospects of a sizeable number of children soon to arrive at the doors of California schools. The recent rubella epidemics had taken their toll and community agencies and the schools had to find ways to meet the increased demand for services.

Subsequent to the special study institute two reports on the multihandicapped were conducted at the request of the State Department of Education. The results of these studies confirmed the fact that a large number of children in California do have more than one serious handicap and require services beyond that which is provided for a child with a single handicap. A study by the San Francisco Hearing and Speech center reported that 984 deaf children under the age of fifteen years were known to have at least one other major handicap affecting educational placement, and when estimates are made for unreported cases and the significance of the 1964-65 rubella epidemics the figure rises to 1,732 children—over 1,000 of them under the age of six.[1]

A second study directed by Dr. Berthold Lowenfeld reported on multihandicapped blind children. This study found 940 multihandicapped blind children, 240 deaf-blind children, for a total of 1,180. When figures for the State Hospital population are included, the number of multihandicapped blind children of school age is estimated at 1,919.[2]

The need for services for the multihandicapped is beyond question. The type of services, their extent, and the placement of responsibility for providing the service are problems yet to be completely resolved. The presentations by community, state, and nationally known leaders which appear in this volume are an indication of an attempt to answer these unresolved questions.

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[1] Calvert, D. R. A report on multihandicapped deaf children in California. A report to the California Dept. of Education, May, 1968.

[2] Lowenfeld, B. Report on multihandicapped blind and deaf-blind children in California. A report to the California Dept. of Education, May, 1968.

Community Challenge: Case Study 1964

Louis Z. Cooper, M.D.
Department of Pediatrics, New York University Medical Center

My main interests and training are in the control of infectious diseases rather than in the education of the multihandicapped. Most of my experience has come from daily responsibilities in clinical medicine and medical research. However, because of our interests in the virus laboratory, and in rubella especially, we do have concerns about habilitation, education, and other services for multihandicapped children.

First, I would like to provide a concise but comprehensive summary of the major and immediate crisis that we share. This is the crisis of the multihandicapped child caused by the rubella epidemic of 1963 through 1965. I know from experience that many people have a distorted view of this problem, and I feel a responsibility to clear up some of the distortion.

Secondly, I would like to define the needs of multihandicapped children, especially congenitally multihandicapped children, as I have learned about them from several sources. The first source is 400 to 500 children, their siblings and parents for whom I have had responsibility in the Rubella Birth Defect Evaluation Project (RBDEP) during the past three years. The second source has been (and continues to be) our staff in the RBDEP, public health nurses, social workers, medical specialists and especially our colleagues in New York who have had long experience in education of the handicapped.

Our experience has been accumulated in the Rubella Research Program at New York University Medical Center where rubella has been under study periodically since the 1870's; in fact, it was first described in America by the first Professor of Pediatrics at Bellevue Hospital, Dr. J. Lewis Smith. In more modern times, it was Dr. Saul Krugman who is our Professor, and Dr. Robert Ward who is now Professor of Pediatrics at the U.C.L.A. Medical School, who renewed the investigations of rubella in 1951. In 1961, a major breakthrough was accomplished by two groups of scientists, Drs. Parkman, Buescher and Artenstein at Walter Reed Army Institute of Research, and Drs. Weller and Neva at the Harvard School of Public Health. They described the isolation and cultivation in tissue culture of rubella virus, the agent which causes rubella. This was the key tool needed for adequate study of rubella and for development of methods for control and ultimate prevention of this infection. The N.Y.U. unit quickly incorporated these new techniques into its laboratory program. In 1964, when a major epidemic of rubella swept across the country, this laboratory was the only laboratory in metropolitan New York with proper facilities for viral diagnosis of the infection. Patients were referred from throughout the area which presented us with a unique overview of the rubella problem.

A series of slides will now be presented to give you an impression of the problem of rubella. The slides are based on experience accumulated in a multidisciplinary clinical and laboratory study that has been underway at N.Y.U. Medical School for a number of years and have been published in papers.[1]

Only a small proportion of children with congenital rubella in metropolitan New York are known to our rubella research unit. In a survey in which we cross-matched our Rubella Birth Defect Evaluation Project (RBDEP) roster with schools and facilities in the area providing direct training and education, only 25 per cent of children in these schools who were born following the 1964 rubella epidemic were registered in the RBDEP. Therefore, since we are following approximately 250 handicapped children, it would be reasonable to estimate that there are 1000 children requiring special education in our area.

I would like to review the goals of our project. One of our major concerns was to establish and define the natural history of congenital rubella. We are now in the process of doing this. Our other major goal, and one we are close to achieving, is the obliteration of rubella. The efforts of many investigators, spearheaded by the National Institutes of Health, are bearing fruit. A rubella virus vaccine is now being tested throughout the country and should be available within the next few years for general use. Then it will be possible to eliminate rubella as a public health menace in the way that smallpox and now measles are becoming rare diseases in the United States.

We also want to provide early diagnosis that is truly multidisciplinary and to establish guidelines for diagnosis and management of children with congenital rubella which will be of help to parents and physicians. New York has many excellent medical facilities, but these facilities and skilled personnel are still in short supply. We have tried to avoid duplication of existing facilities and to promote maximum utilization of these facilities for our children with congenital rubella.

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[1] Cooper, L. Z. et al. Neonatal thrombocytopenic purpura and other manifestations rubella contracted in utero. *Amer. J. Dis. Child. 110:* 416-427, 1965. Cooper, L. Z. and Krugman, S. Clinical manifestations of postnatal and congenital rubella. *Arch. Ophthal. 77:* 434-439, 1967. Cooper, L. Z. German measles. *Scientific American 215:* 30-37, 1966.

After the Rubella Project multidisciplinary medical team completed its evaluation of the children and the diagnoses were explained in detail to the parents, it was inevitable that the next question raised by the parents of handicapped children was "What can we do to help our child?" On the face of it, this seemed easy, and some of it was easy. New York is well endowed with facilities for special education, compared to most communities. We started to refer children to the existing agencies and facilities that were geared to handle deaf children, blind children or brain damaged children. However, these facilities were saturated quickly and long waiting lists developed. Furthermore, the multihandicapped child was usually left out because programs were, by and large, single-discipline oriented and staffed.

We next attempted to seek out additional facilities that might not have been known to us. Resource books turned out to be outdated and totally inadequate. The capabilities of many programs changed frequently. Our public health nurses and an experienced medical social worker, borrowed from the State Department of Mental Hygiene, then went out into the community to see for themselves what was available. Our knowledge of community resources for handicapped preschool children is based on the data accumulated by these careful workers, and can be summarized as follows: of 200 children in our group clearly labeled as requiring early special education 86 (43 per cent) were not even referred to other facilities because they had no chance of receiving service. Most of these children were multihandicapped.

The individual facilities frequently seemed to be unable to predict their capabilities, even a few months in advance. During June and July, we made direct contact with 41 facilities in metropolitan New York, and asked such simple questions as, "Do you have summer programs?", "How many children are enrolled?", "Do you plan to have a program beginning in September?", "How many children do you plan to enroll and how many are on the waiting list?", "What sort of services do you plan to provide?" We were only able to get answers to these simple questions, and fragmentary answers at that, from 21 of these 41 facilities. Now it is October, classes began late in September, and we still do not have any idea where many of our children are going, or where they should go with regard to educational facilities.

The crucial problems are well known to each of you, but bear repeating. First of all, the capacity of existing facilities is inadequate. Secondly, they are predominately *single-discipline* oriented or, at the most, oriented to two disciplines. They refuse to accept children who are multihandicapped, and when they do accept them, they keep them briefly and then reject them because they do not feel adequate to keep them. Thirdly, there has been a total lack of coordination between the facilities. This lack of coordination has been compounded by the traditional defensiveness and concern for vested interests of many of the agencies, facilities and their staffs.

Referral procedures are haphazard and lack follow-through. When disadvantaged families attempt to make use of services they get lost in the shuffle. If they are able to find their way to one agency or facility, they frequently do not understand instructions. They become discouraged, especially when they are sent to a unit which is already overburdened. Then they quit, and a child is left lying in bed, looking up at the lights, or poking his fingers in his eyes, or sitting in a wrestler's bridge position on the back of his head and on his heels. This is very discouraging, especially when we realize how many children from disadvantaged families would respond very well with adequate health and educational care.

Better educated families are in a more favorable position, but even they frequently get lost in the shuffle of the haphazard referral process which encourages—not discourages—"shopping around." Every time a family makes a contact with a new agency or facility, a whole chain of events takes place and we encounter the problem of duplication of services—services that are in short supply.

Duplication is also a bugaboo from our own point of view. Each of the facilities or agencies have their own team of specialists, their own rules and regulations, their own staff person to make contact. Instead of looking for documents which describe the medical and social background, the families are put through this whole procedure again. Not only is this procedure extremely painful for a family with a multihandicapped child, but it is extremely expensive and time consuming, and frequently ends up in rejection of the child.

We have a great shortage of people with skills in health, welfare, and educational fields and to have a given child worked up thoroughly by three, four, or five agencies before an adequate placement is made is ridiculous. And yet, it is still going on.

There has been a total lack of longitudinal planning. We know that exemplary care for congenitally impaired children begins with medical care, family counseling and guidance to proper facilities. We also know that a child requires one type of program at age two, perhaps by a private agency; that at three years he may need the services of another private agency; and that at four or five he may best be serviced in a public school system. Yet, I am unaware of any coordination of these events, either in terms of guidance for the family or for proper advance planning by those who must provide the service. General Motors could not assemble a baby carriage with such little organization.

What should be done? First of all, we have to look to the immediate crisis of rubella in 1964 and 1965. You are fortunate that the rubella epidemic reached California a year after it struck New York, so that you have more lead time in terms of making appropriate plans. We hope you can do a better job than we have done.

We have to be quite flexible. We have to broaden the restrictive categorization concerning admission of children to educational facilities. We have to lower the age limits. Programs that start when multihandicapped children are four, five or six years old will miss the boat. Not only may the child have a severe emotional component compounding his physical handicaps, but the entire family constellation may be beyond repair. The Infant Auditory Training Program of the New York City School System accepts children as soon as a diagnosis of hearing impairment is suspected—even at age eight months. This type program must be expanded and coupled with medical services for earlier identification. Technical knowledge for early identification is available now, and should be in reach of every family.

We cannot wait for teacher training programs to provide skilled teachers for the multihandicapped. In the first place, to the best of my knowledge, there are no teacher training programs in existence to guide people in handling the multihandicapped. So it seems to me that the logical thing to do is to promote communication between those people who have these special skills. We have to send teachers of the deaf to work with teachers of the blind and the brain-damaged. This will provide some immediate service to the children who are now in need of services. We have to depend upon OJT, on-the-job training, and a good deal of interaction between those who have had broad experience in one field and who can provide this information to those in another discipline. We have to use modern techniques of electronically processing records if we are to register children and to keep track of them. The techniques for doing this are presently available. It is just a matter of putting them to use. In the Rubella Project, the entire medical record is being handled in a format for computer processing. We hope that by using this technique, our information can be readily retrieved, analyzed, and made available to others so that duplication can be avoided.

We must accept true responsibility for the families of these children. One of the most distressing things that we have observed has been the business of a parent and child showing up at an agency, going through an admission interview with some stranger, and then being told that they were in the wrong place—"Why don't you try the agency down the street?" This is ridiculous. We have to accept the kind of responsibility that a physician is supposed to accept when a patient walks into his office. A patient may walk into my office who has a disease for which I am totally inadequate to provide an answer. However, it is my moral responsibility, and my legal one too, to see that before I dismiss this patient, I guide him to and am assured that he has been accepted for care by a competent physician.

Adequate referral and acceptance of responsibility are not the same as guaranteed success in therapy. We cannot assure most people of success, as there are many things for which we have no cure. The point is we must maintain responsibility until we have the answer or can transfer the patient to someone more qualified, who is equipped and willing to accept responsibility.

We must encourage existing single-discipline oriented facilities to expand in a fashion which incorporates other areas of special skills so that they can accept and serve multihandicapped children. In our community, certain schools for the deaf are accepting children who have visual or neurologic impairment. They are doing this on an experimental basis with no promises to the parents. At Bellevue Hospital, the New York City Board of Education, in collaboration with the Rubella Project, is opening an experimental preschool, staffed in one room by a team of teachers. The team consists of educators who come from programs for the deaf, the blind and the brain injured. They will work together under a medical and social service umbrella staffed by the Rubella Project, and will accept only multihandicapped three year old children who are ineligible for service elsewhere.

Creating teams from specialists who have not worked together in the past, and expanding their capabilities by on-the-job training of other professional and paraprofessionals can help to solve the present rubella crisis. However, if we do not establish a lasting mechanism or superstructure for providing proper service to congenitally impaired children, regardless of etiology, we will have failed. No one could have predicted the rubella epidemic of 1964-65, the thalidomide disaster, or retrolental fibroplasia. Newer knowledge can prevent recurrences of these tragedies. Nevertheless, no one can know what will produce another epidemic of multihandicapped children. It is unrealistic to believe that we can escape from such periodic catastrophes. It is clearly in the best interests of the entire community to be prepared.

This should not be considered the well-meaning educator's problem alone. The solution can only come from an organized team approach in which the medical, social service, and educational skills are integrated into a program which stresses early identification, coordinated family-oriented service, and longitudinal planning.

The biggest stumbling block today is the question of "Who should take responsibility for providing services to the multihandicapped child and his family?" No single agency, private or governmental, is capable of assuming such responsibility. It is quite clear, however, that the first steps toward creating a framework which can utilize the wealth of existing community resources must come from those who make policy and control funds in the local, state and federal governments. Unfortunately, those officials are so burdened with other high priority crises involving millions of our citizens that they have not been able to provide the leadership required. Since the multihandicapped child does take highest priority with us, it must be our responsibility to meet the immediate crisis as best we can, to demonstrate team efforts on a local level, to pressure for attention by quantitating the needs and to be ready with concrete suggestions when our turn comes with the policy makers.

California Trends for Services for the Multihandicapped

Donald Mahler, Ph.D.
Chief, Bureau for Educationally Handicapped and
Mentally Exceptional Children,
Division of Special Schools and Services,
California State Department of Education[1]

If there is a theme to my remarks, it is to provoke you to review in your own mind the whole role of special education. As several of you probably know, the Council for Exceptional Children established a Professional Standards Committee a few years ago to prepare suggestions for teacher training programs for all areas of exceptionalities. Drafts and re-drafts were prepared, regional and national meetings were held, and a final report presented at the 1966 International Convention in Toronto, Canada. Various groups and individuals, however, felt that additional work should have been attempted to reduce the separatism and hyper-specialization which seemed to exist among the various categorical groupings.

This concern led to a very interesting four-day work session at the University of Maryland late last winter. Personnel representing training programs, school districts, state offices, the United States Office of Education, and C.E.C. struggled not with teacher training requirements, but rather with the basic variables influencing existing special education categorization. A tremendous amount of time and thought was spent presenting position papers, arguing taxonomies, and attempting to reduce complex inter-relationships to graphic displays.

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[1] Dr. Mahler is presently Director of the Division of Education, Humboldt State College, California.

I am not certain this study group, despite its plethora of "visiting experts," ever arrived at any general conclusions. Regardless of how much the participants agreed that a continued proliferation of categories was undesirable, that the existing number should be reduced, and that our dependence upon historical medical models was deplorable, all attempts to work toward consensus about new groupings failed. Very few participants seemed completely comfortable with the proposed new descriptors. Indeed most discussions floundered when the exclusive possession of certain traits by a given category was threatened by the permutation of various categorical cell membranes. Part of the inability of this group to rupture or even to make a small hole in the categorical barrier may have been due to unconscious vested interests in certain fields, but I believe the participants were genuinely trying to leave their enclaves. I belive the barrier was conceptual rather than concrete. I will return to this later.

For my part, I came from the assembly more convinced than ever that special education is concerned with only two large groups of primary variables and one group of dependent variables. The first group is *child variables* and the second group is *school variables*. By this I mean that a child comes to school with a variety of past experiences, physical, emotional, and mental characteristics, and familiarity with a basic environment. He immediately must accommodate himself to the restrictions imposed by the school, a finite, ubiquitous social institution. The characteristics of the typical school become the school variables and make up the environment within which the individual child must function.

Most pupils, of course, are able to adjust and function within the school, for indeed the school variables are based upon an aggregate norm. Many pupils, however, have one or more characteristics which severely restrict their ability to perform satisfactorily within the school-group norm and, therefore, require specialized provisions. The general matching of child-school variables is our third group, the dependent group, called *program variables*. And the particular provisions provided for atypical children we call *special education program variables*.

It might be asked if this description of program variables is not inter-related with and essentially the same as school variables. I don't believe so; perhaps an analogy will help explain how I perceive the three variables. Let us consider the school variables as the way a landlord builds and furnishes an apartment building based upon what he knows tenants have wanted in the past, on housing trends, and on his own objectives. Most tenants are satisfied with the accommodations and request only minor modifications. These are the normal "child variables." How the tenants, the building, the furnishings, and the landlord function together are the "program variables."

To continue the analogy, when a tenant with characteristics which do not fit the norm requests an apartment, very rapidly he finds a mis-match between his needs and the structure. Try as he may, he cannot function adequately. The landlord is faced with major remodeling or an eviction. All too often in the past, of course, the atypical tenent could not even obtain an initial rental, but was immediately shunted to a special apartment called an institution. And more recently, he would be sent to a separate facility which looked like all the newer apartments from the outside, but which turned out to be vastly different upon habitation.

How tenants live in the apartment constitutes program variables, and how atypical tenants are accommodated within the structure becomes our special education program variables. My feeling is that special education is concerned with how to establish and operate with these variables within the general education without eviction or major remodeling, both of which are costly to society in terms of human worth and financial expense. This is not to say that minor remodeling may not be required or that the other tenants, or students, may need to adjust some of their utilization patterns. Cooperation on all sides is needed to take care of the concerns of the majority, as well as the minority. Satisfactory program implementation also requires a variety of specialists not usually found in general education, from medicine, to the social sciences.

We are concerned this week with designing and operating more adequate programs for the multihandicapped children, the atypical tenants in the analogy. But before we can attempt to approach this task, we must define our terms.

I cannot arrive at a definition via absolute terms; rather, my definition is arrived at via comparisons and relative terms. This is because I personally believe that a handicap is a consequence—a dynamic condition. A disability, on the other hand, is undoubtedly a condition which can be identified but may or may not be a handicap. Let me give you two illustrations. One, blindness is an acknowledged disability, but our own integrated public school programs for the blind are concrete examples that the consequence of blindness as a functional handicap can be minimized with adequate school-pupil adaptations. Two, a child with a general ability level of about 90 may be severely handicapped in a school or class where other pupils range from 115 to 145, but he might have no handicap if his peers range from 70 to 90 .These illustrations make the point that whether or not a given child has a handicap is often the result of where and when he attends school, rather than solely a function of the child himself.

Turning now directly to this question of definition, I would like to approach it from the point of who are the "un-multihandicapped." Earlier I reported the anxiety the University of Maryland group had when many characteristics presented themselves in more than one supposedly discrete category and their dissatisfaction in not being able to reconcile this. To me much of the problem seemed conceptual, because of the way we are taught to think. We begin with very little children, teaching them to identify gross characteristics, then to sort and classify, and finally to categorize. When everything fits into neat little egg-create type boxes and tables the child earns an "A" grade. When we become very wise psychologists, we construct ingenious forced selection multiple-choice tests which are easily tabulated but eliminate individuality.

We categorize people the same way. We reject having to consider too many variables and clutch tightly any scheme which allows us to say with finality and assurance, "There, he belongs in *that* category." It seems to me we must consciously modify our thinking of human characteristics and recognize that black and white are not adjacent conditions, but rather the opposite ends of a spectrum with an infinite variety of colors in between.

Recognizing the same spectrum in human characteristics, we might define an atypical or handicapped child is one whose physical, mental, or emotional (and perhaps social and economic) characteristics are such that he cannot receive the full benefit of the normal school program available to him. If we accept this definition of a handicapped child, we probably can go one step further and say that a multihandicapped child is one with two or more identifiable handicapping consequences. But then logic would compel us to invent a phrase, such as "monohandicapped," to explain the so-called pure child-school interface consequence, despite the overwhelming evidence that such a multihandicapped-monohandicapped dichotomy is false. Perhaps what we are really concerned with are degrees and patterns of multihandicaps.

I realize that people, including our legislators, find security in thinking in categories, even as we school people do, and that categorical legislation largely has been responsible for bringing us to where we are today. But I would like to offer one final observation: Categories do not determine children; categories only exist to facilitate dealing with the characteristics children and youth bring into our schools and the resultant reactions to these characteristics.

PANEL: Special Programs in Operation for the Multihandicapped

CHAIRMAN: *Aleen Agranowitz,* Director, Speech and Language Development Center, Anaheim, California

Ella Allan, Principal, El Portal del Sol School, San Mateo, California

Donald Calvert, Ph.D., Executive Director, San Francisco Hearing and Speech Center, San Francisco, California

Freda Chaikin, Director of Special Education, Foundation for Exceptional Children, Los Angeles, California

Allice Garrett, M.D., Rancho Los Amigos Hospital, Downey, California

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Jules Ross, M.D., Director of Special Education and Therapy Program for Emotionally Disturbed Blind Children, Foundation for Junior Blind, Los Angeles, California

Mrs. Agranowitz: The Speech and Language Development Center in Anaheim serves neurologically handicapped children with speech and language problems. Many of these children are considered to be multihandicapped. The Center offers three types of programs:

- The adjunctive therapy program supplements the regular public school program for those children requiring special help.
- A preschool program serves the younger children referred to the Center by parents and various professionals.

■ The Sedgwick Program is designed for those children who reside in districts where the public schools do not offer an appropriate program. Parents may enroll children under provisions providing for the state to reimburse the Center for a portion of the expense.

Mrs. Allan: The El Portal del Sol School operated by the office of San Mateo County Schools began a class in 1966-67 for children with cerebral palsy who were also deaf. The need for such a class became apparent when the school for the cerebral palsy was unable to supply the language instruction required by deaf children and classes for the deaf were unable to accept the children because of the children's inability to follow the physical routine. Major difficulties were encountered in recruiting a teacher for the class. When a well-prepared teacher of the deaf was employed the children made excellent progress.

Dr. Calvert: The San Francisco Hearing and Speech Center has operated a preschool program for hearing handicapped children since 1951. Individual and group instruction in oral language development for children is offered, along with counseling and guidance for parents. There is no minimum age requirement for the program. Several children with other handicaps along with hearing loss have been admitted. There have never been many of these children at any one time so we have usually set up an individualized program to try to meet their special problems. The Center had worked with a few children who would be termed "deaf-blind."

In 1965 we began to get referrals for hearing tests for children who had both a hearing and vision impairment of significant degree. This led us to work on the development of hearing tests which would take into account the limited response repertoire. A conditioning procedure, using an auditory stimulus and an associated visual reward, has been reported in the May, 1967 issue of the Journal of the California Speech and Hearing Association.

The cause of most of these combined hearing and vision disorders was rubella, commonly called German measles. As more and more children with hearing impairment and with combined visual-auditory problems were referred, we became aware of some of the consequences of epidemics of German measles which were taking place in California and across the nation. An outbreak of epidemic proportions on the East Coast in 1964 was accompanied by a lesser but very significant outbreak on the West Coast that same year. As was predicted, the epidemic spread westward and in 1965 the western United States was the focal point of the epidemic.

It has been our tradition at the Center to begin a program of habilitation as soon as a child with hearing impairment is identified. We attempted to include our "deaf-blind" children in our regular program for hearing handicapped children and quickly realized that their combined problem was much more than just the simple addition of two handicaps. Their ability to receive any stimulation was severely limited and their ability to respond meaningfully was greatly impaired. We decided that if we were to work with these children at all, we would have to develop an approach

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[1] Reddell, R. C. and Calvert, D. R. Conditioned Audio-Visual Response Audiometry. *Voice*, XVI, 2, 1967.

very different from that we used with our children who had only the hearing handicap.

Our first task was to look over what other schools and classes were doing for these preschool age children. In 1966 we corresponded with and visited several schools known to work with deaf-blind children. We discovered that there were no organized programs for preschool age deaf-blind children, and that the tradition was to begin formal education after the child reached age five. Such a tradition did not fit with our experience with hearing impaired children, with what we knew about learning readiness, nor with studies on the effects of early sensory deprivation. We decided, therefore, to conduct a one year study to determine whether we could develop a program which would give significant benefit to preschool age deaf-blind children.

Our staff had developed considerable expertise in testing hearing, fitting accoustic amplification, and conducting auditory training, as well as in counseling and guidance for parents in rearing young, hearing handicapped children. We were fortunate to have visual research laboratories next door to the Center in the Presbyterian Medical Center Institute of Medical Sciences, and to have practicing ophthalmologists in the same building as the Center. We sought all available literature on teaching deaf-blind children and began to formulate the direction of our project.

We hired a psychologist, who was experienced with young, non-verbal children, to prepare a behavioral profile for each child to be used as a baseline for judging progress when the profile was taken again at the end of the year. We purchased or made special toys which would have high visual, auditory, or tactual value.

We defined six basic aspects of the project:

Meaningful Evaluation
Augmentation of Sensory Ability
Increased Sensory Stimulation
Structuring the Environment
Teaching and Training
Direction and Guidance

Meaningful Evaluation

We were concerned with determining the abilities and limitations in hearing, vision, taction, and intelligence of our children, so that appropriate habilitation procedures could be carried out, so that a realistic appraisal of of each child's potential could be made, and so that future social and educational placement could be made. I have mentioned before the development of hearing tests and a behavioral profile. We have been working with the Presbyterian Institute of Medical Sciences for help in meaningful evaluation of vision and other sensory abilities. We believe any child's future placement in a special school, in the home, or in an institution should be based on the maximum amount of carefully collected information possible, rather than on traditional generalizations about the limitations of deaf-blind children.

Augmentation of Sensory Ability

It has been our procedure to fit a child with a hearing aid as soon as the extent and nature of his hearing loss has been determined. Amplifiers are selected individually for each child. This may be done as soon as five or six months. We begin with a portable amplifier lent by the Center and used under the close direction of our staff, moving to the child's own aid as soon as possible. We made sure that our deaf-blind children were seen by ophthalmologists and were fitted with special lenses as soon as possible. Periodic re-evaluation is carried out both for hearing and vision; appropriate changes in hearing aids or lenses are made.

Increased Sensory Stimulation

We found most of our deaf-blind children receiving a very minimal amount of sensory stimulation in the home. This was often associated with the parents' inappropriate interpretation of the words "deaf" and "blind." The assumption was made that the child could neither see nor hear anything and often the parents believed the child had no capacity for learning. By helping parents teach their children to walk, by getting them out of a sensory-sterile play pen, we opened up a vast new sensory experience through the child's own exploration. By substituting wide-table chairs for the usual high-chair with a small tray we maintained objects within the child's reach at all times. A prime concern was to change the parents' behavior so that they would provide their child with an increased amount of auditory, visual, and tactual stimulation. Visits to the homes by our teachers and visits to the Center by parents and their children were conducted at least once a week.

Structuring the Environment

By definition, a handicapped child is one who does not get along well in a normal environment. Changes in the structure of that environment may be made to improve the individual's chances of learning and functioning. Objects in the environment are of little value unless they can be placed within the hand grasp of the child or within his visual field. Sounds are of little value unless they can be directed to the child's ears. We have worked with our parents not only to increase the amount of sensory stimulation in the home environment but to see that it is appropriate for the child and is directed to him. A high pitched squeaky toy is of little value to a child who hears only low frequency sounds. A bright and interesting visual display is of little value when it is behind or above the child's eye level.

Teaching and Training

Normal children do a great deal of learning during their early years as a result of direct and purposeful intervention by the parents—toilet training, and the use of eating utensils are among behavior learned in this manner. The job for the parent is much harder when the child's primary sensory avenues are impaired. Children also learn a great deal through unconscious or informal teaching by the parents—prime among such behavior is the learning of language and discrimination among stimuli. Our teachers go into the homes, counsel parents at the Center, demonstrate procedures which can be used and observe the parent working with the child for this more formal part of learning. A traditional problem with such teaching is the clear establishment of a reward system for behavior considered appropriate, to reinforce the possibility of repetition of that behavior. When a stimulus is given, a response is suggested and when it occurs, some reward should be given as reinforcement. For the deaf-blind child, the difficulty with this normal procedure is three-fold—we are limited in the stimuli with which we can reach him, he is very limited in the responses he can give, and he may not be rewarded by those things which are rewarding to a child who sees and hears.

Using graduate students in psychology at San Francisco State College, we developed procedures for operant conditioning to establish a highly structured system of stimulus, response, and associated reward, where the child's stimulus-response-reward system may previously have been chaos. We plan to continue using these procedures, in conjunction with our usual teaching and counseling, for testing, training, and research on the potential learning ability of deaf-blind children.

Direction

Through our project, we hope to provide help with the future direction of these children as they are considered for placement in various educational and social environments. In addition to the provision of maximum information about the potential of each child, we hope to help the parents in making realistic decisions based on this information. We accept neither the idea that all deaf-blind children are like Helen Keller with superior hidden abilities waiting to be uncovered, nor the generalization that all deaf-blind children have only a very limited potential. Such generalizations are excuses for avoiding the painful process of directing a child's future toward realization of his maximum ability, contentment and social usefulness.

The initial year of our project will conclude this winter and we plan to publish our results. We are continuing the operant conditioning portion of the project for at least another year to determine its usefulness over a period of time. Although working with children having significant visual handicaps is a departure from the Hearing and Speech Center's traditional work, we believe that the obvious need dictates our continuation of the project until other agencies can develop programs, perhaps through public support.

Dr. Garrett: Rancho Los Amigos Hospital in Downey operates a day program for severely involved athetoid cerebral palsy children. The children originally involved in the project had very little hand function, and quite limited communication skills. Bracing was required for maintaining head stability and for the upper extremities. At the present time braces are still being developed and tested for use with these children.

Devices were developed to assist in positioning the hands in space and special crawlers were devised to permit the children to move about on the floor. Team members working with these children include an orthopedic surgeon, a preschool teacher, a speech therapist, an occupational therapist, and a physical therapist.

Dr. Ross: We believe that prior to making a definitive diagnosis of mental retardation and subsequent placement of long term nature in a state facility for the retarded, these children need to be afforded the opportunity of a well-structured program that takes into consideration the individual differences of each child and does not try to fit the child into the existing mold of the classroom.

This past summer we conducted an evaluation clinic at our residential camp in Malibu. We invited eleven youngsters to camp for a week. During this week they were involved in a recreational program on a one-to-one basis. We had their counselors evaluate them using a social maturity scale developed here at the Foundation. Our staff, which included our three educational therapists, two speech pathologists, and myself, evaluated each child individually to attempt to determine which of these children would benefit by enrollment in our program. At the conclusion of this clinic, we accepted five youngster into our program for the fall semester and provided two others with supplemental activities for the balance of the summer.

When a new child is admitted into our residential program, it is understood that he is admitted for a trial period of eight to twelve weeks of continuous observation. At the end of this period a conference is scheduled with the parents to discuss our evaluations and suggestions for subsequent intervention. Our entire staff is involved in this evaluation.

Our program is so structured that all of the children rotate through the specific activities prescribed for them by the diagnostic team and staff. Not all children will participate in all actvities. Our program is divided into two major categories. The first one consists of our day time program which is somewhat similar in nature to a public school program. This starts at 8:30 and terminates at 3:00. The second half of the afternoon program is a recreational or physical education program. This begins at 3:00 and continues until bedtime.

The day-school program consists of three classrooms. In the first classroom are our least capable, most disturbed and least able to communicate verbally. Many of the children are either non-verbal or have disturbed patterns of speech and language development. Here a great deal of time is spent in developing the need for meaningful communication. Through play therapy and toys the child begins to explain his fears and anxieties.

The second classroom is our "transition" room, where a child receives his first academic experiences when he is ready to deal with abstract thinking on a primitive level. Here he is exposed to braille reading and writing and other academic materials as he is capable of handling them.

Our third room, which we call our "right" room, consists of children who are doing well academically (for our children) and have matured emotionally to the point that they function well in a group environment. This is the group we hope will be rehabilitated and re-integrated into society.

In the three rooms you will see both group and individual teaching and both academically and therapeutically oriented activities.

Through motor activities we are trying to establish new motor pathways or expand upon the existing ones. A crafts therapist encourages the child to express himself through the media of clay, and also teaches body awareness through three dimensional clay figures. The children who are interested and demonstrate a talent, are provided with piano and organ instruction twice weekly, taught both by rote and by Braille music. All of our children receive instruction in tap dancing twice weekly. This is a prime motor activity beside being one that opens doors for them on a family and social level.

The children are constantly involved in activities that teach "skills of daily living" throughout both aspects of our program. They are usually by nature of their home environment quite parasitic and totally dependent upon their environment for their existence. They are exposed to classes ranging from music appreciation to telephone technique. This is an *ongoing* program and we are continually adding activities. The evaluative process also is on-going.

Several of the colleges in the community are sending graduate students in psychology, speech, and language development to us for field service training. We hope that we are able to provide them with a rich and meaningful professional experience that will equip them for future professional endeavor. They in turn are providing us with a much needed service. With time we are hopeful of expanding this to encompass other fields such as peripatology, physical therapy, and music therapy.

Lastly, I would like to mention the parents. The parents of these children need considerable help, understanding and direction. They should not be accused and be made to feel more guilt-ridden than they already are. These parents must be allowed the opportunity to vent their hostile feelings and frustrations. They must be made to understand that there is no textbook for dealing wtih these children, but that they are helping to write one. Group discussion often improves communication within the family, which may have been bad even before the birth of the child. We at the Foundation have monthly Parent Study Group Meetings with all of our parents and our staff. We allow the parents to discuss their problems without fear of being accused. We try to "hold their hands" and make them feel somewhat more comfortable with themselves while they are working out these problems.

Mrs. Chaikin: The Foundation for Exceptional Children in Los Angeles is currently serving 325 children. Of this number it is estimated that 80 per cent are multihandicapped. Screening is accomplished by two consulting psychiatrists, five to six psychologists, an occupational therapist, three to four psychiatric social workers, and speech therapists. A complete diagnostic workup is completed prior to referral to the special education department.[2]

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[2] A case study was presented to demonstrate procedures for admitting a child and several recommendations were made for program improvements.

Mrs. Huffman: In the community at large, retarded blind or deaf children are considered "the lost generation." They fit neither into classes for the sensory handicapped nor in training programs for the retarded child. It is immediately apparent when one looks at the institutionalized retarded deaf or blind child that he, too, is often lost.

The primary goals of the project at Sonoma State Hospital are:

- To treat each child as an individual and to recognize and accept him with his limitations.
- To teach simple tasks of self-help to develop a responsibility to his own needs and those of others.
- To teach him how to communicate not only his wants and needs, but also his feelings and emotions thereby relieving him of some of his fears and frustrations.
- To teach the child about life instead of shielding him while he is within our protective walls so he can learn to conform to the demands of society.
- To develop a respect and affection for other people and possessions.

Our project is supported in part by the Public Health Service Project Grant made under the Hospital Improvement Program. The grant has not only assisted in establishing a special unit, but allowed us to be selective in procuring staff to work with the children. The staff was chosen according to their abilities, interest and enthusiasm to work with this type of multi-handicapped child. The enriched staffing allowed a smaller ratio of patients to employee, enabling a more intensified training program.

Since September 1, 1965, when the project was established, many changes have taken place in so far as subjects and staff are concerned. Presently there are fourteen deaf and twenty blind children. Both patient groups have been divided into small groups according to their capabilities with a skilled technician as the parent surrogate.

Perhaps an observer unfamiliar with the patients would be struck by their multiple handicaps. However, the staff in their everyday contact with the children have noticed progress in numerous areas. Progress has not been the same with all the children; some have developed more than others and some have grown in areas in which others stood still.

One negative feature has to be mentioned, namely that all the children regressed upon transfer to the unit for a period of two to three months. The degree of regression varied and disappeared almost completely in all individuals. The youngsters happily adjusted to their new environment and began to move about freely. Even the blind youngsters who were previously shy in venturing out were freer.

The children have accepted the personnel and appear to be fond of them. The innovation of wearing street clothes by the nursing staff has added to the homelike atmosphere of the unit.

Due to the wide variety of visual disabilities and hearing impairments, individual attention is given to each child. We have created an environment where the children can learn to use toys and creative material to develop skills and latent abilities. There is no set curriculum. The training areas emphasized on the ward are: Self-care activities (dressing, feeding, toilet skills), mobility and orientation skills, development of comunication, socialization with others, and interaction in recreation.

Repetition is the best teacher with the mentally retarded. Therefore, it is necessary to offer our children a varied recreational timetable, but also give them time to understand and repeat the various events frequently. They participate in group activities and learn to take turns and share. Trips have been made to various places in the community (zoo, circus, sports events, plays, stores, fairs, restaurants and swimming), in order to acquaint the children with the world outside the hospital grounds. This has helped them learn how to conform to society's demands.

Blind Project

Our twenty blind children have greatly improved. Fourteen now dress themselves, eleven have good eating habits, seven have fair eating habits, nine are habit trained, and nine are toilet trained. Eighteen of the children ambulate well and the other two are much improved. Five are now able to do simple work chores and five are able to say simple words while three use short sentences. Nine children are able to relate with everyone in a free and easy manner. All the children go to school, the more capable three times a week and the others twice a week in a nursery school type program. Since enrollment in school, our younger children are responding more. Three boys are attending a sheltered workshop at Sonoma State Hospital.

Although both peer and child-adult relationships have been stressed continually, success has not been achieved with all the children. Some have occasionally joined in small group activities thus having closer contact with peers. Overall, the interaction between the children and adults has been better and more intense than the peer relationships.

Participation in recreational activities have been emphasized and been favorably accepted by many of the youngsters. The children have been, in part, cautious in accepting new experiences.

One boy, who had progressed to the maximum potential of the program, was transferred to another unit where he has regressed due to the lack of programming. We attempted to place him in a private institution or a family setting, but there was none available. At the time he was transferred, he was toilet trained, no longer self-destructive, fed himself with full utensils, attended school, enjoyed the ward program and did especially well at the sheltered workshop.

Our replacement for this child was a sixteen year old girl who was formerly on Our Intensive Study Unit for the Emotionally Disturbed. She was transferred to another ward for a week after that project was disbanded where she was restrained continually. When brought to HIP, her restraints were removed and she was familiarized with her new surroundings. For the first week she did extremely well, but when she realized she was not back on ISUED, she regressed sharply. She is now slowly gaining confidence, feeling secure and accepting the technicians. She is beginning to talk more and her self-destructive behavior, which became prevalent after she was transferred to HIP has become infrequent.

Deaf Project

Formerly many of the deaf children were severe behavior problems, such as five head-bangers, eight with temper tantrums, two runaways, three autistic children who isolated themselves from any stimuli. The enriched staffing and increased activities on and off the ward, appear to have contributed to their somewhat less aggressive behavior toward others.

We have fourteen children in our deaf group at this time. Eleven of our children dress themselves without help, three dress themselves with assistance; ten are toilet trained, two are habit trained. All the children feed themselves and have fairly good eating habits. Four of the older girls now set their own hair and are very concerned with their personal appearance. The five older girls attend sewing and cooking class. The self-destructive behavior of all but one child has subsided. None of the children run away any longer and all but one are beginning to interact with peers and staff. This one child has a visual problem and spends most of his time staring at spinning objects. All have learned, to some degree, to accept the responsibility of doing simple work chores; they take care of their own living unit with the supervision of the staff. All the children have learned sign language, to a degree, and eleven of the children are capable of using and comprehending the signs. Five will occasionally talk while signing. All the children attend school, divided into two groups. The more capable children are learning academic courses and the others attend a nursery school type program. Five of the children are receiving speech therapy and four are taking piano lessons.

The participation in recreational activities has shown a marked improvement thus allowing more interaction with their peers. Three continue to isolate themselves in a group setting, but the majority are learning how to play cooperatively. Resources in the community are more accessible to our deaf children than to the blind children due to their alertness and marked advancement in all areas. Opportunities for activities in the community have encouraged acceptable social behavior from visits to the zoo, airport, parks, swimming, stores and the Berkeley School for the Deaf.

One boy, who was accepted at the California School for the Deaf in Berkeley has adjusted. Several employees have visited him and noticed that he is now talking as well as signing.[3]

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[3] The HIP has developed two handbooks, *Handbook For Nursing Personnel Working With Mentally Retarded Deaf Minors* and *Handbook For Nursing Personnel Working With Mentally Retarded Blind Children*, which contain information on the purposes and methodology of the HIP roles of the various disciplines in nursing service, programs for the children, criteria for selection of children and the Progress Evaluation Scale of the HIP ward and school. These handbooks are available to anyone who requests them. The charge is $1 each. Anyone interested should request the handbooks from The Hospital Improvement Program, Sonoma State Hospital, Eldridge, California.

The Multihandicapped Deaf Child

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In 1965 the Secretary of Health, Education, and Welfare received a report from his Advisory Committee on the Education of the Deaf which started with a quotation now familiar to many:

> "The American people have no reason to be satisfied with their limited success in educating deaf children and preparing them for full participation in our society.
>
> "Less than half of the deaf children needing specialized preschool instruction are receiving it.
>
> "The average graduate of a public residential school for the deaf—the closest we have to generally available 'high schools' for the deaf—has an eighth grade education.
>
> "Seniors at Gallaudet College, the nation's only college for the deaf, rank close to the bottom in performance on the Graduate Record Examination.
>
> "Five sixths of our deaf adults work in manual jobs, as contrasted to only half of our hearing population.
>
> "This unsatisfactory state of education of the deaf cannot be attributed to any lack of dedication of those who teach and work with the deaf. The basic explanation lies in our failure to launch an aggressive assault on some of the basic problems of language learning of the deaf through experience or well-planned and adequately supported research, and in our failure to develop more systematic and adequate programs for educating the deaf at all levels."

This strong indictment of the education of the deaf has even more devastating implications for the education of the multihandicapped deaf child.

It is understandable that a society devotes its attention and energies to special problems on the basis of how many people are affected by that problem. Problems that affect many people take a great deal of attention and energy; small problems tend to be neglected. It would, undoubtedly, be disruptive for an economy if that were not the case. Disruptive or not, our present practice of largely ignoring the needs of the multihandicapped child can have a serious effect upon the status of our profession.

If we pretend to be a profession, we must have some standards. These are generally represented by State Certification Laws and academic degrees. Many of us pride ourselves on being members of a professional specialty that requires considerable training and experience beyond the basic teacher certification requirements. Yet we do a curious thing when we are faced with the multihandicapped child. We suddenly forget all about our professional specialties and become "blooming generalists" all over again.

The multihandicapped child does exist, and it is very difficult to deny him some type of classroom experience, particularly if the multihandicapping condition is not too serious. Let us consider what happens in many schools for the deaf when the multihandicapped child applies for admission. We accept the mentally retarded, if there is some hope of his making progress in the deaf class; the physically handicapped, if he is ambulatory; the aphasic, or whatever we currently are calling that large group of neurologically disturbed children with hearing losses. We do this out of a desire to help the child for whom no other training is available. Yet in that very act, we seriously damage our professional status as teachers of the deaf. We are supposedly experts in one field of special education. It is rare that our training would include adequate background in the methods, material and practicum experiences required of the teacher of the mentally retarded or the physically handicapped. Yet we take the multihandicapped child into our classrooms for the deaf and in the process do harm to all concerned.

We destroy our own professional status because even the well-trained teacher of the deaf is not qualified or competent to deal with the mentally retarded or physically handicapped child unless he is one of those rare individuals with dual training.

We certainly damage the image of the deaf and the overall performance scores of the group of deaf children for whom we are primarily responsible. One wonders how much of the general retardation of academic achievement scores of the deaf is a direct result of having incorporated into almost all deaf groups a significant number of children with additional handicaps. We do a further disservice to the deaf child in our classes as the multihandicapped child invariably requires a disproportionate amount of the teacher's time.

Certainly not the least damage is that, by absorbing these children into existing programs, we prevent their ever being assembled as a group large enough for its wheels to be heard and be given a share of the grease that our society affords the squeaking wheel.

Let us take a similar example from another profession. If we have a pain in our ear we go to a professional specialist, an otologist. If we have a back ache we may go to an orthopedist. We would be quite upset if we discovered the orthopedic surgeon operating on the ear. Yet he has a basic M.D. degree which is comparable to our basic teaching credential. When he specializes he is expected to restrict himself to that specialty.

Now it appears that we have an excellent opportunity to change this situation. The 1964-1965 and subsequent rubella outbreaks have produced in California as many as 1,500 handicapped children of which 40 per cent are probably multihandicapped. I take my figures from a report by Kleinman, et. al., of the California State Department of Public Health, which estimated that approximately 196,000 live births occurred in California during the months of September, 1964 through February, 1965. The first trimester of the gestation period of these births occurred during the first six months of 1964 when the epidemic was presumably extant. Assuming an attack rate of 1.8 per cent of infections during the first trimester for pregnant women in an epidemic period, they estimated there may have been roughly 3,500 women with rubella infections during the first three months of pregnancy during the epidemic year of 1964 and perhaps a similar number in 1965.

The report continues:

> "However, one might speculate that the reason an epidemic occurred in both 1964 and 1965 was that the first was not severe enough to build up a sufficient number of immunes during that year to prevent its recurrence during the second year. Therefore, we might revise our estimate downward to around 3,000 or fewer mothers with rubella infection in the first trimester during each of the two years or 6,000 during the two years, of which perhaps 2,000-3,000 may have evidenced clinical symptoms. . . . "If we assume, as appears reasonable, that 25 per cent of infants born to mothers with rubella in the first three months of pregnancy evidence a congenital malformation, we would anticipate around 1,000 to 1,500 malformed infants to be born as a result of the recent epidemics of 1964-1965.
>
> "On the basis of further studies of children whose mothers had rubella in early pregnancy, it is further estimated that 40 per cent of the 1,000 to 1,500 handicapped children would suffer from multiple malformations."

The balance of the Kleinman report does nothing to contradict the projections that have just been reported. This could mean between 400 and 600 multihandicapped children will be coming to school age in the very near future. When one considers that neither of California's residential schools for the deaf at Berkeley or Riverside is enrolling as many as 600 children at the present time, one can begin to appreciate something of the magnitude of our problem.

The 1966 *Annuals of the Deaf* reports that 100 multihandicapped deaf children were being cared for as of October, 1966, distributed as follows: 15 at the Deaf-Blind Department at Berkeley, 20 at Sonoma State Hospital classes for the Deaf, 21 at the Pacific Boulevard School in Huntington Park, 22 in Pacific State Hospital School classes for the Deaf in Pomona, and 22 more at Porterville. It is quite obvious that we are going to have to drastically revise our planning and preparation to care for these children. It would be my hope that the magnitude of this problem is sufficient to insure that we approach its solution from the professional point of view.

Within our field we hear talk about dangers of "hardening of the categories" and discussions of short-term crash programs for training teachers of the multihandicapped.

Let us consider how this would apply to teachers of the deaf. One of their major tasks is the development of language. This process is not completely understood, but the graduates of our schools, although not achieving all that we would wish of them, at least demonstrate that our specialists are doing a rather remarkable job in teaching perhaps the most complex of all learning tasks through a substitute sensory modality.

We have learned from the linguists that the hearing child has acquired most of the rules of syntax by three and a half or four years of age. Yet we have little understanding of what experiences were crucial for this learning and even less knowledge of how these experiences could be most effectively provided for the deaf child. Even more frightening, we have no knowledge of how the patterns of experience that we provide the deaf child under our present system of specialization, facilitate or possibly even hinder the development of the rules of syntax. Such a lack of knowledge is not something that we are proud of: on the contrary, we are only painfully aware of our ignorance.

The proposition that we could achieve better success—or even any success—by abandoning the training and experience that is required in our present specialization appears questionable.

The Process of Curriculum Development: Implications for Educators of the Multihandicapped

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Perhaps most basic to my presentation is the meaning which I attach to the term "curriculum." In the first place, a curriculum means to me a plan, worked out by educators to achieve certain goals deemed desirable for, and attainable by, a group of children. Such a plan must be comprehensive; it must make provision for progress toward all the goals of education. These goals usually contain reference to personal development, social adequacy, economic efficiency, and civic responsibility. Put in another way, the goals of education are aimed at intellectual, physical, social, and emotional development to the highest degree possible for each individual.

In the light of these broad goals a curriculum can no longer be viewed simply as a course of study or a collection of courses in various content areas. The attainment of democratic behavior, good mental health, and sound human relationships stems, not from the acquisition of factual knowledge but from the total learning environment we create in the classroom. A curriculum plan then, must encompass not only a body of content, but also include attention to teaching strategies and to the overall social organization of the classroom and school. To state my position concisely, a curriculum is a plan for organizing the total life of the school insofar as we intend it to affect child behavior. It becomes as important to give thought to the kind of setting in which the self may grow toward maturity as it is to plan for a proper sequence of learning experiences in mathematics. It is vital to create environments wherein understanding of social process and acceptance of others are encouraged as it is to provide for the study of the documents on which our way of life rests. The selection of the proper approach to each child in the light of his learning style is as essential as the selection of the best reading book.

Let us turn now to the process of curriculum development itself. Whence come goals? By whom are they set?

Sources of Educational Goals

The goals of education in a culture emerge out of a matrix composed of three elements—the traditions of the group, or its history, the present state of affairs in the culture, and the values held by the members of the culture. These values may be of long standing, be relatively new, or represent reinterpretations of old values forced by changing conditions. A brief illustration in each of these three areas may be helpful. During the early years of our nation, a decision of far-reaching importance was made that *all* should be educated. This resulted in a school system geared to the needs of all citizens—the bright and the slow, the leisured and the workers, the whole and the handicapped. That we have not completely solved the problems growing from this decision, is obvious. My point here, however, is not to dwell on our shortcomings, but rather to show the relation of an historical decision to the kind of educational program we must have. Another example of how history has affected the nature of the educational program is the fact that urbanization and industrialization became a way of life, leading to specialization of labor. This historic trend made it necessary to include in our programs such things as the study of government and the problems of our culture, because individuals were removed from first-hand contact with many aspects of life. An educational system has deep roots in the past, which are not easily torn up and which inevitably influence our thinking about schools and their functions.

It is obvious that certain social facts, trends, or issues of the present must be taken into account in the process of building a curriculum. The inescapable fact that the United States is in a position of world leadership has made it imperative that the man in the street have some basis on which to make decisions which eventually give direction to foreign policy. Social problems which we face today—problems of air and water pollution, decay of our cities, the proper balance between capital and labor, the care of the elderly, the rights of minorities—demand an electorate able to make intelligent decisions. A rapidly advancing and changing technology must be controlled lest it destroy our culture. In this broad sense, the nature of our present culture cannot be ignored as educators plan curricula.

The mere presence of tradition or social issues does not suffice to make clear what *should* be done in the schools. Inevitably, social issues are controversial; they demand value judgments. Such value judgments must be made at all levels of life—from the home through to national and international levels and such value judgments frequently change. The past may help to guide us, but ready-made judgments it does not supply. Thus, the process of determining goals never ends. This is true not only in stating goals, but also in interpreting them. The meaning of the goal of economic efficiency today and the education needed to reach it, for example, is quite different from what it was during the early years of our nation.

I have described the circumstances out of which general objectives of education emerge. Now, who sets goals?

Setting of Goals

We are all familiar with statements of broad goals made by the national government, by state governments, by various professional groups, and by local school boards and systems, but let us focus on the role of goals in the process of curriculum development both for the normal and the handicapped children of our state and country. For better or for worse, handicapped youngsters will grow up to live in local, state, national, and international communities despite their handicaps. Certainly no program for them will be adequate which does not prepare them for this. To talk about a curriculum for the multihandicapped as though it were something with little or no relationship to curriculum generally would be disastrous in the long run. In many ways, a curriculum for this group of children will resemble in important aspects the curriculum for all children because it is quite likely that the broad goals for the multihandicapped will be the same as those for the nonhandicapped.

However, such statements of broad goals are essentially without meaning until they are spelled out in behavioral terms. Questions such as these must be asked and answered: What is the meaning of the term "well-adjusted?" What behaviors do we believe indicate such meaningful adjustment? What degree of latitude do we feel is permissible within a broad definition of "well-adjusted?" What is a desirable and acceptable sequence of growth toward such adjustment at the various age levels? When we speak of ability to adjust adequately to the environment what are we really talking about? What behaviors should be taught for at what age levels in the achievement of such a goal?

Such behavioral descriptions obviously must relate not only to time and place, but to the individual. In the case of the multihandicapped, concern for the individual results in descriptions taking on connotations different in degree if not in kind from those set forth for the nonhandicapped. Regardless of the special adaptations of behaviors specified for the handicapped, however, the behaviors sought in all areas of education must be spelled out before an intelligent approach can be made to planning a curriculum. Also they must indicate an appropriate sequence of behaviors to be sought in the light of the various handicaps, or combinations of handicaps, with which the children suffer.

Finally, it is essential that all individuals who deal with a group of children agree on the statement and meaning of the behaviors sought as well as the means to be employed in reaching them. To assume that writing a curriculum guide is equivalent to the total process of curriculum development is futile. Those who are to implement a program must be involved in its conception and development in appropriate ways if it is to succeed.

If this is not the case, confusion and inconsistency in the program result. Such involvement is also needed to insure that achievement of *all* goals is assured. Otherwise imbalance may result as teachers or schools stress one segment of overall objectives at the expense of others. The implications thus far for educational planning for the multihandicapped child may be summarized as follows:

- Since the multihandicapped child is a member of local, state, national, and international communities, it follows that program planning for him must be done within the context of the broad objectives currently accepted for all children.
- Content, alone, or courses of study, cannot be conceived of as *the* curriculum. Attention must be given to planning the total life of the child in the school insofar as it is to be used to change behavior.
- Careful thought must be given to stating behaviors to be sought through the educative process. Such behavioral statements must deal not only with end results, but with desirable and attainable sequences appropriate for the various kinds of children with whom you deal.
- All concerned with the education of the multihandicapped must be involved in the statement of goals and must achieve consensus as to their meaning and implementation if we are to have a consistent program of instruction. Such involvement and consensus is needed not only to assure smooth transition from stage to stage in behaviors, but also to ensure desirable balance in the achievement of all the goals of education.

Let us turn now to the more immediate problems and tasks involved in curriculum planning.

Designing the Curriculum

Once objectives have been clarified we face the issue of determining the precise nature of the plan for achieving them, the curriculum itself. The development of a curriculum for any group of children must provide a proper balance of four essential elements—the nature of the child, the nature of the learning process, the nature of the psycho-social background of the groups involved including their values, and the nature of the knowledge to be learned. Each of the four has a profound effect on the scope and sequence worked out and the pattern of curricular organization chosen.

In the first place, we know that a great variety of individual differences exist not only among children, but also within each individual. It is likely that such differences as exist in the "normal" population are even more important as we consider the multihandicapped. But, what are the implications of such differences for the program planner? What do we do educationally to accommodate them?

It seems to me that several implications can be identified. The facts of differences seem to argue that our usual plan of developing curricula which assign specific elements to specific age or grade levels cannot be justified. Not all children are ready to learn a given thing at the same time.

How, then, can we support the practice of "teaching" all children, using a curriculum which specifies that this or that is to be "covered" at a given grade level? Obviously this is an impossible task. But from the point of view of curriculum planning, the implication is that we cannot justify a uniform plan for all children. Great flexibility in the placement of content as well as in choice of method must be allowed in the light of unlikenesses.

In the second place, differences among children also are found in attitudes and values. What should be done to take them into account in curriculum planning? I would argue that if, for example, we are concerned with developing "good citizens," we cannot use the same materials and procedures with a child who sees the policeman as a natural enemy as we would with a child who sees him as a "friend." This is a concrete illustration of but one facet of a much larger and more important problem we must face when we attempt to help children understand the need for government and the place of authority in our culture. It would seem logical that we design different learning plans for children in the light of attitudes and values they bring with them to school. Can the curriculum be the same in scope and sequence for the blind and crippled child who is otherwise "normal"as for the child who is cerebral palsied and retarded? What differences would be provided for in a plan for the partially-sighted and physically handicapped as compared with a program for the hard-of-hearing, hyperkinetic youngster? Such illustrations could be continued at length, but perhaps I have made the point—no curriculum can be planned, or assured of success, which does not carefully take into account the nature of the learner.

By the same token, I must also point out that no curriculum based solely on the nature of the child can be satisfactory. We all live in a culture which makes certain demands on us. No curriculum planner can ignore these demands, regardless of the child with whom he deals. Both the child and his needs and the demands of the culture must be considered in the development of a curriculum best suited to reconcile the two. For example, sociologists and other scientists tell us that we are rapidly moving into the age of automation when more and more of our people will have more and more leisure time. If this be true, then our school curriculum must not only include emphasis on technical training but also more attention to helping children learn to use leisure time effectively and in socially desirable ways. In addition, it would seem to mean that we pay more attention to the need for creating a view of life among students which will lead them to value public recreation areas and to be willing to pay the necessary taxes to support them. As we all know such areas are becoming increasingly scarce; the time to plan for the next generation is now. Thus, the problem of taking into account the psycho-social background of the child must include focus on both the peculiar attitudes and values of the various subgroups within our culture as such, and must also see them as participants in the larger culture and affected by it. A program which is planned for either one alone will inevitably result in an unbalanced education which may well continue and exacerbate the many critical social and educational problems of the present.

There is no need to dwell on the importance of learning theory in planning educational programs. The rather sharp divisions which existed among advocates of the so-called cognitive, functionalist, and behavior theories of learning have tended to be broken down during the past decade or two, and as Estes says, increasingly have been thought of as alternative modes of describing learning. While a considerable gap still exists between laboratory psychology and school learning, some progress is being made in bridging it. One instance of this is programmed instruction, which is presently receiving a great deal of attention and experimentation. We should profit in our curriculum planning from the careful behavioral descriptive approach used to set objectives, the pacing concepts, and the reinforcement strategies which are characteristic of such programs.

The final element involved in curriculum planning is the nature and structure of knowledge. As I see it, there are three approaches to this notion currently in use or under discussion. The first of them can be said to be both a method and an integral part of the structure of knowledge. When thought of as a method, it is commonly called inquiry training or the discovery method. As such it is not concerned primarily with what is to be learned, but rather with the way in which it is learned. It places much of the responsibility for learning on the learner rather than the teacher. Its advocates claim that it adds zest to learning and will bear fruit later in the sense that the learner is in fact learning how to learn rather than merely mastering content per se.

A second approach to learning is based on identification of major principles or generalizations of the greatest importance from the various disciplines. These generalizations are then used as the framework for the selection and organization of content.

The third approach is a philosophical one, advocated by Bruner in his *Process of Education* for psychological reasons. Perhaps the leading exponents of this view philosophically are Schwab and Phenix. Their views may be found in brief form in *Education and the Structure of Knowledge*, published by Rand, McNally. Briefly, they seek to determine a rationale by which the disciplines are distinguished from, or related to, one another, to identify the underlying theoretical positions which serve to direct research and thinking in the fields, and to determine the peculiar methods of proof and verification of knowledge used by each. The basic notion is that if the child during his formal education is introduced to these three elements of a discipline and if he masters them, he will not only have command of the various fields but also be equipped to continue learning after formal schooling ceases. Such a structure obviously would have great utility in making necessary decisions about not only content but also method in the various areas of the curriculum. It is obvious that use of these ideas, particularly the latter one, has great bearing on content selection and organization.

To summarize these elements and the place they play in curriculum design, the following points may be made:

■ The nature of the child who comes to us, together with his capacities, attitudes, and values serves to set the limits within which we must operate.

- The forces playing upon the child from his home, neighborhood, community, and the larger forces developing from the society as a whole serve to further clarify the parameters of formal educational endeavors.
- The knowledge we have, and will gain, from studies of the learning process serves to guide us in development of teaching strategies and sequences.
- The newer emphasis on the structure of knowledge as a guide to content selection and organization must be taken into account as we decide what to include or omit from the curriculum.

Implementing curriculum designs

Other problems must be faced as curriculum development proceeds for any group of children, handicapped or not. Among them are the following:

How is the curriculum to be patterned?

What materials and equipment are needed?

How is the school to be organized?

How are the children to be grouped for instruction?

What teaching strategies should be employed?

How is the success of the curriculum to be assessed?

How is the curriculum to be continuously updated?

How is pupil progress to be evaluated and reported?

No single answer to these or other theoretical and practical problems faced by the curriculum maker has yet been demonstrated to be best. A greater or lesser degree of controversy surrounds most of them. I mention them here only to indicate somewhat more fully what is involved in the total process of curriculum development.

PANEL: Parental Problems

CHAIRMAN: *Alathena J. Smith,* Ph.D., Psychologist, John Tracy Clinic, Los Angeles, California

Norma Bartz, Los Angeles, California

Evis J. Coda, M.D., Medical Director, Kennedy Child Study Center, Santa Monica, California

Nellie Girard, Santa Ana, California

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Camelia Robles, Los Angeles, California

Margaret Saunders, Counselor, Variety Club Blind Babies Foundation, Fair Oaks, California

Laurel W. Simpson, Assistant Director, Special Services, Placentia Unified School District, California

Four mothers of multihandicapped children participated in the discussion along with other panel members. The remarks of these participants are consolidated and summarized in the following paragraphs.

Obtaining an early and definitive diagnosis was among the most difficult problems faced by the parents. In some cases the parents felt that the original diagnosis was extremely negative and left the parents with little hope. On the other hand a "wait-and-see" attitude on the part of the professional team members prevented the child from receiving the services of special clinics and schools. Parents expressed a desire to be able to receive more information at an early age.

A second area of concern centered around the lack of a comprehensive plan for locating and receiving various types of services for the multihandicapped child. Parents felt that they were being channeled through a hopeless maze of agencies and that they had to seek out professionals with little real guidance from anyone who had a comprehensive view of the services that were available. When services were located they were, in some cases, at such a great distance from the child's home that it was not possible for the child to continue to live at home.

Parents desire to be heard, yet, they sometimes feel that both educators and members of the medical profession fail to listen to what they have to say regarding their handicapped child. From the point-of-view of the parents, their long and intimate association with the child provides opportunity for gaining insights that are not usually available to the medical doctor or educator.

It was suggested that communication can be improved between parents and service agencies by adopting a functional terminology meaningful to all the groups involved. In many instances, problems of communication develop simply because of the lack of opportunity for the concerned parties to sit down and discuss the situation in several sessions.

Persistent Problems in the Education of Children With Multihandicaps

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During the dark days of 1940, Winston Churchill began the search for arms with which to repel a prospective invasion. In the process a series of 19th century guns and their operating manuals were unearthed. The directions required that several people be employed and that two men execute a sharp left turn and extend their hands. In view of the scarcity of personnel the roles of the two soldiers were examined. Their role in firing the gun was simply not clear. After much trouble an elderly colonel, formerly of the Indian army, settled the problem. "It's obvious," he snorted, "they are holding the horses!"

I sometimes suspect that our action in special education is comparable to that of "holding the horses"; that is, we may be doing things whose principles were originally sound but which have become less relevant with the passage of time. Time has a way of putting ideas and practices into a critical perspective. Special education programs have no immunity to this process and we can profitably examine them in the context of recent years.

We can observe an interesting progression in the last few decades. Programs have been extended to children with speech problems, to the mentally retarded and so forth. Slowly we have come to see that we have been dealing with single problems; however, we now recognize that multiple rather than single problems are commonly encountered in children. The outcome of critical analysis is realization of the unreality of single-problem approaches. The consequence of this realization, has been an attempt to deal realistically with children. However, despite this positive turn of events, we encounter a series of problems which persist in the face of our generally helpful innovations.

The first persistent problem to which I would like to call your attention is the nature of the difficulty we identify in children. Almost instinctively we employ terms such as *brain injury* and *blindness*, expressions with a clear medical or tissue-level connotation. These terms are indicative of disease rather than instructional handicap. The difference is that not all disease states of children are directly relevant to the instructional process. One can, for example, be baldheaded, a tissue level disorder in all but middle-aged males, but without instructional implications. The persistent problem to which I am referring is the failure to develop a description of children in instructional terms. We need a data language to describe children. The outcome of this innovation would be discrimination between children who need help and others who do not. Practical implications would be the rational allocation of funds to defensible programs.

The second persistent problem emerges from its predecessor. We need to describe the tangible ways in which children's instructional handicaps show themselves. We observe, of course, that this phrasing connotes that the way of interference, the behavior, is the handicap. We eliminate from our lexicon words offered as causes of problems, preferring to concentrate on the problems themselves. Causes, even when a basis for therapeutic intervention, are more relevant to people outside of education. The ways in which learning is a public act, a visible, observable process need taxonomizing. Some ideas in this direction taken by the writer have appeared in publications in 1961 and 1965. The work of Stevens is also highly relevant in this regard.

The third problem I wish to consider is a refinement of its predecessor. We need to develop epidemiological representations of the various configurations of learning handicaps in multiple-problem children. There are, undoubtedly, some configurations of learning disability which are more common than others. However, we really don't know what they are and so we don't know how extensive or severe the problems are. Description in these terms would allow us to plan our instructional programs more rationally. It would also allow us to make teacher preparation programs relevant to the populations they are intended to serve.

Rather than use a single basic problem for the fourth persisting issue, I would like to group a series of more limited matters with a brief observation on each:

■ Primacy of Handicaps

Whatever the lexicon used to describe the stature of children, there remains the probability that various disabilities do not occur in the same degree. The severity of instructional handicaps in specific instructional contexts varies. We need in consequence to identify the primacy of serious problems, probably either in terms of their impact on learning style or on the teaching innovations they demand.

■ Interdisciplinary Contributions

A persistent matter is the problem of responding to the need to provide more than one therapy for children. This produces a concern for blending various treatments, and for arranging procedures so as to facilitate rather than inhibit cooperation among the disciplines.

■ Preschool Planning

The preschool years create a harmful or beneficial climate for all professional contributions. Because of financial and statutory concerns we have not made great programmatic advances in beginning therapy before children are of school age. The preschool period is important because it potentially allows us to predict, to forecast, program needs for groups of children.

■ Compacts

A problem which persists, but in a less aggravated form, is the establishment of agreements between governmental units in order to serve children in areas where programming is not developed.

■ Brain Foods

A problem which has arisen before is the extent to which handicapped children will profit from diets or chemicals designed to increase brain efficiency. Unlike the folk tradition—from goat's meat to glutamic acid—we now see serious biochemists claiming to change cerebral metabolism. They offer evidence that both the chemistry and the experiments are sound. This time, *Rybamanol* and similar agents will give new life to an old issue, but in a more rigorous way. The issue of chemical versus educational therapy is a persistent one, and educators will need to face it in a more sophisticated form.

Finally, there is an item which persists despite radical improvements in programming and despite the extension of services to many more children. It is the failure to shift from a practice-centered orientation in education to one in which a less immediate outcome for the investment of money and energy and time is permissible. The analogy of the fireman fighting the fire is reasonable, to many people, only when he holds a hose. There is, however, every reason to think that we have benefited from the diversion of energy into new ways to fight fires. We all accept the value of foam rather than water when fighting gasoline fires. It may well be, by analogy, that there is a value to be realized from examining thoughts, concepts, and priorities with a view to making refinements. A broader perspective than immediate payoff continues to be neglected at a time when funds and energy are being extended to the problems or the handicapped on an unprecedented scale. This problem has plagued us in the past and it continues to persist.

These are some of the persistent problems in the education of children with multihandicaps. We must be even more persistent in our attempts to find the solutions to these problems.

Prescriptive Teaching: An Integrating Process in the Education of the Multihandicapped

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The word "prescribe" means literally to "write beforehand" or to "set down the direction." If teaching is based upon sound learning principles, then these principles prescribe teaching. In this context teaching includes those school functions which facilitate learning, the most important of which is instruction in the classroom. It deals primarily with the means for achievement of sound educational goals for educationally handicapped children.

Origin

The rationale and methodology described in *Prescriptive Teaching*[1] developed as a result of experiences in working with handicapped children, first as a teacher and later as a school psychologist. It was in the latter role that I was continually confronted with the problems of communicating diagnostic findings so that appropriate implementation could take place.

A methodology emerged which assists educators and consultants in solving the dilemma of assimilating and applying information pertaining to the exceptional child. It provides them with a systematic approach to link medical, psychological and social diagnoses, thus helping them to translate the different diagnoses into reasonable terms applicable to the classroom.

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[1] Peter, Laurence J. An Evaluation of the Written Psychological Report in an Elementary School Guidance Program, unpublished doctoral dissertation. Pullman, Wash., Washington State University, 1963.

Prescriptive Teaching provides a solution by establishing what is educationally relevant in terms of the handicapping consequences to the child's learning. It then translates this to the teacher and others responsible for action. The specific elements of the educational program are thus related to the diagnosis. Prescriptive Teaching assembles diagnostic information in a manner that facilitates appropriate teaching, making a significant contribution to improvement of the education of multihandicapped children.

Prescriptive Teaching provides a model for integrating and translating diagnostic findings into teaching. This model utilizes diagnostic information from many sources and employs the information in the utilization of a wide variety of educational techniques in the solution of the child's difficulty. This is particularly important in teaching multihandicapped children where a number of educational variables must be modified. The model in no way limits the availability of techniques but rather facilitates the use of appropriate educational modifications.

The program is based on a communication circuit and the plan of *Prescriptive Teaching* is organized around this circuit, starting with the child in the classroom and progressing through the stages of referral, diagnosis, treatment and evaluation of outcomes. This provides for systematic study of the elements within our area of educational responsibility.

Educational Responsibility

The most remarkable feat of learning any human undertakes—learning to speak his native tongue—is accomplished, in the main, without formal instruction. The vast majority of children, in a normal environment, will develop the competencies needed to survive in that environment. Some children have learned to read and write with little or no formal instruction, and many have learned from parents or from other children who have had no professional teacher training.

Much of a child's learning is incidental. The stimulus events in the environment elicit a constantly expanding repertoire of responses as the child's capacity for responses increases through growth. This maturational process results in a continually new production of interactions with the environment. These interactions are strengthened or weakened by environmental consequences. This natural or informal process—the child's developing capacities for response, the eliciting events in the environment, the child's resultant increase in behavioral responses, and the shaping of these behaviors by their consequence—result in appropriate incidental learning.

Because of the nature of the growing organism and the major role of incidental learning in the total education of the child, educators have been allowed to deal in generalities about the processes of education. Because most children will learn quite well by almost any method, or in spite of any method, general educators have been spared the necessity of studying the process of instruction in a scientific or systematic way. This has permitted us to be vague and to deal in general terms about understanding the child.

The Interdisciplinary Team

When a child does not respond favorably to the educational milieu, educators have turned to other professors for attempts at help. Studying the whole child by employment of an interdisciplinary team is now generally accepted as the ideal in diagnosis. In terms of uncovering physical, mental, social, and emotional pathology, this method is effective and some children probably benefit.

Limitations of Present Knowledge

The classroom has not as yet been subjected to the kind of research which determines all the components of good teaching. Scientific investigations of teaching have been faced with the dual problem of the complexity of teaching and their inability to control factors outside of the classroom. Statistical methods have attempted to control these variables by sheer numbers. Laboratory methods have traditionally isolated or abstracted simple elements from crude experience and pursued the study of learning material carefully divested of meaningful information. Scientific investigations have had to face the problem of the complicated and untidy nature of classroom experience. Both laboratory and statistical methods of studying the teaching-learning situation deal in abstraction or simplification and are therefore in danger of missing significant factors.

This danger, of course, exists in all scientific efforts. A classic illustration is Liebig's discovery of the functions of carbohydates, fats, and proteins. In his study of nutrition, these elements were isolated from the untidy complexity of our common everyday food. He did not realize that very significant elements had been ignored. In consequence, dieticians for many years concluded that fresh fruit and vegetables were only a luxury and that salads were merely a garnish adding a pleasant but unnecessary frill to our eating habits. Important as Liebig's discovery was, it did not focus attention on the totality or complexity of an adequate diet.

Our present knowledge of teaching is somewhat parallel. Some elements which apparently contribute to effective teaching have been isolated and studied, but when attempts have been made to teach by these elements singly, the results have been disappointing. Prescriptive Teaching attempts to incorporate some of these known elements but does not presume to prescribe the totality of how to teach.

Teaching, like most professions, is a combination of art and science. Teaching, like the practice of medicine, is very much an art. It calls for the exercise of talent and creativity. But like medicine, it is also—or should be— a science, for it involves a repertoire of techniques, procedures, and skills that can be systematically studied and described, and therefore transmitted and improved. The effective teacher, like the competent doctor, is the one who adds creativity and inspiration to that basic repertoire.

Rationale

Education is concerned with that part of adaptive behavior which comes under the influence of teaching. Prescriptive Teaching helps us base our curriculum on what we know about child development. The child's psychological development is made up of progressive changes in the different ways of interacting with environment. It is the teacher's responsibility to arrange stimulus events which will elicit these changes and reinforcing events which strengthen these changes. These stimulus events and reinforcing events are the specifics of our technology. Prescriptive Teaching, by providing a model for determining educational specifics, brings our instructional technology under systematic study.

The school's influence on the child's learning is limited to the events before behavior occurs and to events after. In psychological terms, these are referred to as stimulus events and reinforcement events. If these events are arranged so as to elicit progressive change in the motor, perceptual, social, and cognitive development, and to allow reinforcing events to become attached to these changes, learning is at an optimum. The Prescriptive Teaching model relates ten educational variables to the diagnostic information so as to provide an educational milieu where these stimulus events and reinforcing events are integrated to elicit and strengthen learning.

School Variables

The school variables we have used in the model are based upon the writer's research in communication[2]. These variables are appropriate to the school situation although they appear to differ from the elements studied in laboratory experiments or those employed in psychotherapeutic models. These are the ten school variables employed in the Prescriptive Teaching model.

■ Consistent Approach

An approach is a way of coming toward or reaching a person. Although Prescriptive Teaching is a program based on individual diagnosis, there are groups of children whose emotional or behavioral needs are met by the same approach. Almost any consistent structure is more conducive of growth and confidence than no framework or a vague and fluctuating one. Without a consistent approach, there is high probability that we will reinforce the very behaviors we are trying to eliminate. The consistent approach is of particular value in working with the emotionally disturbed child.

■ Teaching Methods

The diagnosis of the child's achievements and of his processing modes of learning can indicate the method of perceptual training. Will a sense channel or processing mode respond to stimulation or should we rely on those channels which are unimpaired? These questions must be answered before determining the methods of instruction.

■ Specific Objectives

The expected specific behavioral changes should be stated so that stimuli and reinforcement can shape appropriate learning and so that outcomes can be evaluated. The specific goals for the multihandicapped should include that, as a result of his special education, he respond to the stimulus events and reinforcement events found in the normal environment. Secondary goals should include dealing with the normal environment with prosthetic devices. Where these goals cannot be achieved, dealing with a modified environment in school, at home, in a sheltered workshop, or in an institution becomes the goal.

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[2] Peter, Laurence J. *Prescriptive Teaching.* New York, McGraw-Hill Book Company, 1965.

■ Ancillary Services

School services provided by psychologists, counselors, speech therapists, visiting teachers, medical doctors, and other consultants are deployed so as to facilitate the learning process.

■ Placement and Personnel

All aspects of school placement are considered. Grade placement, regular or special class, integration and the type of teacher are determined in relation to the educational significance of the disability.

■ Subject Matter

Content is selected in order to use the child's areas of strength and interest to develop competence in overcoming areas of weakness or compensating for severe disabilities.

■ Instructional Materials

Consumable supplies can appropriately be selected for this process. For example, children with motor problems may be aided through writing on large sheets of paper and by using large crayons and pencils.

■ Special Equipment

Special teaching aids, educational toys, teaching machines, reading kits, and other equipment can appropriately be prescribed.

■ School Plant

The classroom or the school building should be appropriate to the specific educational goals. For example, the classroom can provide abundant or little stimulation to the child. This may be crucial to the learning of a hyperactive child. Questions regarding transportation, stairs and ramps, toileting facilities, and availability of opportunities for integration with normal children are aspects of school plant considerations.

■ Auxiliary Agencies

Child guidance clinics, family service agencies, rehabilitation centers, meical, and other services dealing with the school child are involved in a coordinated manner so as to encourage and maintain continuing two-way communication. This is particularly important in delineating areas of responsibility when working with the multihandicapped child.

Toward a Science of Teaching

Traditionally, many teachers have intuitively selected the appropriate modification for children with problems. Without a rationale such as provided by Prescriptive Teaching, we must rely on intuition. Valuable though intuition is, we must also develop a science of teaching. A profession cannot be developed adequately on a basis of methodology which cannot systematically be studied and communicated.

The elements of Prescriptive Teaching are not new. They provide a rationale and methodology for establishing a more effective integration and implementation of well-established and scientifically-tested techniques. The outcomes of implementation of Prescriptive Teaching can be described in three ways: individual results, program improvement and professional development.

■ Individual Results

Follow-up studies indicated significant improvement for the child when this integrated approach was employed. Teachers accepted Prescriptive Teaching as an improvement over preceding methods of organizing educational services for the child. It was generally regarded as a practical, effective approach to use within the public school system. It used existing personnel and required the development of basically one skill, the translation of medical, psychological, social, and educational diagnoses into educational prescriptions. Although it provided an improved method of mobilization of services for the multihandicapped and exceptional child, its most important contribution was to a much larger group of less severely handicapped children who were retained in regular classes.

■ Program Improvement

Program improvement resulted in more meaningful educational classification of exceptional children. As a result of the emphasis of specificity and educational relevance, segregation of children into special classes and integration with regular classes was based upon situationally significant educational criteria. In this way, Prescriptive Teaching has become part of a trend toward more meaningful educational programs. Traditionally, we have used medical or psychological classifications, such as physical handicap or mental retardation. Recently, we have seen some educational classifications, such as learning disorders and educational handicaps. Prescriptive Teaching is part of this trend toward educational relevance. It can provide the basis for a more meaningful evaluation of the multihandicapped in terms of realistic educational relevance.

■ Professional Development

Prescriptive Teaching achieves therapeutic results through educational means and supports development of teacher competencies within the educational system. It establishes a rationale for teacher behaviors on the basis of our best contemporary knowledge of the teaching-learning process. It facilitates the kind of feedback and ongoing evaluation that keeps the educational program in dynamic balance while positively reinforcing the effective teacher behaviors.

It can contribute to individual teacher growth and to increased status for the profession. Special education has, to a degree, relied on borrowed status. Multihandicapped children have been of particular concern to the professions of medicine and psychology. Teachers have been described by social psychologists as being high on deference and low on autonomy. Part of this may be a result of the lack of a substantial rationale for teacher behaviors. Lacking a cohesive structure, they are particularly vulnerable to deriving status through association with prestigious professions.

The Prescriptive Teaching model provides a rationale for dealing more meaningfully with many of the specifics within our area of responsibility. This model is offered to our profession as one contribution to the integration of our present knowledge about the teaching-learning process. It provides a rationale for the educational relevance of disabilities and facilitates more appropriate educational modification. It is through this process that we can establish a realistic model of the processes of teaching and learning, and thus a sound structure for our profession.

Teaching is the most important profession and presently has a great number of intelligent, dedicated professionals in its ranks. It can emerge as a truly great profession. Development of successful means of teaching the multihandicapped would be a substantial contribution to that greatness.

PANEL: Problems Confronting Public Schools in Providing Special Services for the Multihandicapped

CHAIRMAN: *Joan Sweeney*, Consultant in Education of the Visually Handicapped, California State Department of Education

Jennie Elenbaas, Principal, Byron E. Thompson School, El Monte, California

Lester I. Foster, Principal, Columbia School, Torrance, California

Diane Leichman, Supervisor, Mentally Retarded and Multiply Handicapped, Los Angeles City Unified School District, Los Angeles, California

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Note: Five case histories were presented by the panelists and are summarized below.

Miss Elenbaas: M.L. is a nice appearing, outgoing, well-adjusted teenage girl. She is nicely groomed and loves the latest fashions. She is fifteen years and eight months, she is deaf-cerebral palsied (athetoid quadriplegic) and her IQ is in the 60-70 range. She has no intelligible speech other than a few words, and she communicates primarily by gestures accompanied by unintelligible jargon.

She is a non-reader and cannot use written language. Her hand use is limited. M.L.'s grossly athetoid movements have remained essentially unchanged the last several years. She walks with a stiff gait, wide base, and all her movements are poorly coordinated.

M.L. is presently enrolled in the class for multihandicapped in a school for orthopedically handicapped pupils. She had been enrolled in a school for cerebral palsied children at three and a half years of age. Medical care at this time was assumed by Crippled Children's Services in the unit located in the school. She has been followed by C.C.S. ever since and has received physical and occupational therapy almost constantly throughout the years.

She received evaluation at a speech and hearing clinic at age four. Following this, M.L. received hearing and psychological evaluation at a clinic, and her parents subscribed to the clinic's correspondence course. She was reevaluated at the speech and hearing clinic at six. This same year M.L. received a series of music therapy treatments. Then she was transferred to the School for Orthopedically Handicapped at age seven.

At eight years of age she was enrolled in the School for Cerebral Palsied Children and remained in residence almost a full year. At age nine she returned to the School for Orthopedically Handicapped in which she is presently enrolled. M.L. has received speech therapy regularly throughout her school career. During the past six years she had the following help:

Received private instruction for a period of time from a speech and hearing specialist from one of our State colleges;

Was tutored by various teachers after school and summers;

Was evaluated and received treatment at the Hear Foundation;

Received one and a half years of highly intensive treatment under the auspices of the Institute for the Achievement of Human Potential.

It is obvious from the above that this pupil's parents have not left a stone unturned in an attempt to give her every possible advantage.

Conclusions: The teachers who have worked with M. L. have felt inadequate in planning her educational program because of the severe hearing loss. One wonders what this child's abilities would have been today if she had been taught in a school for the deaf or at least by a teacher trained to teach the deaf and in a classroom situation similar to that in the deaf program—with small class enrollment, proper amplification and so on.

However, authorities feel that possibly the RH Factor children are more like brain-damaged children than deaf children. Even though these children have an advantage over other deaf children in that possibly they may have more residual hearing, this is counterbalanced by the following:

The perceptual problems—the inability to integrate that which is heard;

The fact that the speech mechanism is impaired—involuntary movements of the speech musculature make voluntary movement difficult;

The degree of mental retardation.

Obviously, these pupils need the full benefit of both the deaf program and the program for the cerebral palsied.

Mr. Foster: G. is a deaf-retardate presently enrolled in a TMR school. In

1954 at age four, he was given a six-week trial placement in an oral deaf program. He was unable to succeed and was dismissed from the class. He remained at home without benefit of education until December, 1964 at age ten. G. was medically diagnosed as having severe neuro-deafness as a result of meningitis at nine days to four months.

In 1963 and 1964, the Leiter test was given and his IQ result showed 43, and 45 his second year. WISC gave him a score of 50, but his performance indicated that he had more ability. G.'s mother said that any placement was better than none.

Now, at age thirteen, G. is with our high school-age group. He has excellent coordination and plays basketball, baseball, and football with neighborhood teenagers. They pick him to fill out the team and he is well accepted. He eats well and sleeps well, also.

G.'s father abandoned the family before this fifth child was born. On state aid are three brothers: 19, 16, 15 and a sister, 17. The family will never accept institutional placement for G. The California School for the Deaf at Riverside is our dream. Discipline to G. is a slap of the hands to indicate "no." With the family there is complete loving acceptance. The personality of the child is delightful. He has a terrific sense of humor, he is a delightful tease and loves a good joke. He does work assignments around the yard. His dependency on his mother is diminishing since being in school. They are very pleased with each other. He is a leader of the group, having had good experience in the neighborhood.

G.'s mother carries through with any program suggested by our speech therapist, school nurse, and TMR teachers. We gave him Frostig material and he just sailed through it. In doing this he learned to be patient and wait for complete instructions. We have observed definite signs of anticipatory thinking of tasks needing completion before actual directions are given. Once, a stapler was needed. One child was sent, but G. became quite frustrated, gave an expression of disgust and went directly to the desk and got out the stapler.

We were able to convince a doctor to help us get G. into U.C.L.A.'s fine clinic for tests. At the Jules Stein eye clinic in April the doctor did not realize he was a TMR child because of the excellent way he responded in a test situation. A change in lenses was recommended.

G. was directly referred to the head and neck clinic; the doctors felt this this boy is not retarded. The audiologist discovered some residual hearing for low tones in the right ear. The former hearing aid was for high tones and fitted for his left ear. The old aid was turned up to the maximum with no results. The new aid can be turned up to one half of its intensity. If it is too loud he experiences discomfort, but he reflects satisfaction by having it and does not wish to have it removed.

Immediate action is recommended as soon as results from U.C.L.A. are released and dismissal from the TMR school with entry into the California School for the Deaf at Riverside—if possible.

Some questions raised are:

Is six weeks a good trial period for a profoundly deaf child in an oral program at age four?

Is there need for a psychologist trained to work with the deaf to administer a proper test for G.'s type?

U.C.L.A.'s audiologist and teacher of the deaf in occupational rehabilitation programs feel that G. is uneducated—not uneducable. They recommended concentrated education for the deaf, and a new type of hearing aid in order to benefit from the small amount of residual hearing he has. This is for "gross" sound and not speech.

G.'s good test situation is a result of our school nurse working with him and helping him learn to interpret responses to directioning which enabled the audiologist to give him a careful test. Our speech therapist is working with G. for thirty minutes each week on lip reading and speech.

Mrs. Leichman: This is a case of a boy who outwardly does not present as many physical problems as some of the others, but for educational purposes is perhaps more multihandicapped. Physical problems in and of themselves are not necessarily deterrents to learning.

M. is a Caucasian male age 12 years-10 months, with a mental age of 4-9 and an IQ score of 45 on a WISC.

He comes from a middle class family with middle class values. The parents' attitude for many years has been that M. "can't learn anything." His speech is slow and labored with poor breath control. The medical diagnosis is severe congenital sclerosis with both lateral and rotational curvatures of the spine. He was also noted to have a heart murmur, and to have delayed mental and motor development and severe speech problem. M. is extremely small for his age and is very thin with poor muscle development. The physician's impression is that the child is of normal intelligence.

For educational purposes, however, the greater handicaps are: poor body image, poor eye-hand coordination, deficits in other perceptual areas, and difficulty in taking directions.

M.'s difficulties in the area of expressive language are obvious; however, there were certain clues in his behavior and reactions to warrant investigating the possibility that his receptive language ability is of higher caliber. The Peabody Picture Test was therefore administered and yielded an MA of 8-11 and an IQ of 75. This confirmed the suspected discrepancy in M.'s ability in expressive and receptive language areas. This boy is severely handicapped in academic learning by his perceptual and language difficulties, however, he has demonstrated ability in verbal concept formation and it appears that his learning takes place primarily through hearing.

It is impossible to predict whether M. will be able to overcome his severe limitations. He is handicapped in many areas vital to success in learning. In addition, there is evidence pointing toward the fact that emotional factors may be operative in this case.

M. was excluded from school until the age of six due to his slow development, particularly in the speech area. He was tested extensively and then placed in a special training class. He remained there until his physical condition necessitated surgery. After the surgery he was placed in a school for physically handicapped in a multihandicapped class.

For six years some very dedicated and intellectually sophisticated teachers had tried an impressive array of remedial techniques to teach this child something, anything—how to print his name in large manuscript, how to count and recognize numbers, and how to do the type of prereading readiness activities common to a special training class. Although he cut and pasted, he matched poorly and could not make a circle, square, triangle, horizontal, vertical, or diagonal line, or any remotely recognizable drawing of an animate or inanimate object.

His motor speech was scant and mostly unintelligible, consisting of expletive noises and one syllable, befogged facsimilies of some words, and a few two and three-word phrases. His speech was totally deviod of pronouns, prepositions, and conjunctions.

Among the concepts he was not able to learn were the basic ones of "same" and "different", "big", and "bigger", "small", and "smaller", and simple direction following if given orally, appeared not to penetrate.

His fragile body was a network of problems, all interrelated. He neither ran, nor hopped, nor jumped, nor learned.

M. had only three assets: an apparently indomitable desire to communicate, superbly good behavior—perhaps too good, and a clear knowledge of managing in this world by pleasing adults. It was his display and grasp of social intelligence and the amenities that first impelled his special training teacher to look at him more closely for clues as to his learning problem and its nature. How important were the perceptual factors, both auditory and visual? What of the family and the key psychological factors?

Further psychological testing was done. The psychologist suggested his placement in a room of children with varied learning and behavior problems but normal or above capacity to learn.

The special teacher worked hard and long and many times felt like giving up. Finally M. learned fifteen letters. The speech therapist worked concurrently with him. His parents also entered an evening Parent Education class.

M.'s behavior has undergone changes, all in the direction of more vocalization, more impetuousness, and occasions of downright boyish naughtiness. He is now able to take a note across the grounds and make a simple verbal request of the office.

It would be a mistake to classify M. specifically at this time. He is, of course, a slow learner. Because he is unable to learn in the usual ways does not mean he cannot learn. If one uses the analogy of walking, M. would be a child who can learn to walk in time with a crutch, not just any crutch; so too, his learning techniques, sequences, timing and reinforcements have to be fitted and refitted to him.

It is recommended that M. be transferred back to a class for educable mentally retarded for one half of the day for the basic core curriculum, speech correction, and corrective health education, and that he attend the class for educationally handicapped the remainder of the day. Finally, an ongoing evaluation of M. should be made by the team.

Mr. Neufeld: First of all, I would like to say that the case I will discuss is in two special programs that are unique to the Stockton Unified School District. I understand no other school district in this state carries out these programs in the same manner as we do. These will be discussed later.

Recently, the counselor, psychologist, speech therapist and myself (those who work with this case) got together for a case study to determine if there might be some new program or an additional feature to our present program that might better help us meet the child's individual need. We failed to arrive at any recommended changes that we felt would be more profitable to this child than our present set-up.

M. is a twelve year old Mexican-American girl in the seventh grade. Her handicaps are as follows:

Hard of hearing;

Educationally handicapped because of emotional problems;

Speech and Language handicaps (there is a lack of concepts and vocabulary on which to build);

Underachiever.

At age four, M. was adopted by another Mexican-American couple. While M. was in first grade in a small school district in New Mexico, it was discovered that she had a sensorineural hearing loss. Since her hearing problem was evident and she was failing in her school work it was decided that an application for the admission of this child should be made to the New Mexico School for the Deaf.

The school accepted her as a student to give her remedial work, to fit her with a hearing aid, and also to remove her from a home atmosphere that was not meeting her emotional needs. The father had a drinking problem and the mother found it extremely difficult to accept M.'s hearing loss and expected too much of the girl. The mother denied the child of all confidence with such remarks as, "you're ugly, you're such a dumb child, you're fat." The father spoke no English and the mother spoke only a broken English. The above situation remains unchanged.

In September of 1964 the parents moved to Stockton, California and M. was enrolled in grade four at a school in the Stockton Unified School District. M. is now attending our schools for the fourth year and has been enrolled in our Severely Hard of Hearing program during this time. I worked with her in our Severely Hard of Hearing program the first year she was in the district.

Most of her speech consisted of isolated words and two and three word phrases which she uttered very quietly and in an insecure manner.

Therapy during the year stressed using new words and improving the ability to formulate sentences. The therapist had a brief conference with the classroom teacher almost every day and was given a list of vocabulary and concepts that M. did not seem to understand in the classroom. These were then incorporated into her language and lip reading lessons. Her articulation was fairly good on isolated words but words were very much run together and poorly articulated in free speech.

Currently, M. is in an E.S.S.A. program which is a federally-funded program to meet the needs of the deprived. Three teachers are in charge of three periods with sixty children. Children placed in this program are felt to have a good learning potential but need special help. During this space of three periods block subject areas are covered—two academic subjects and one activity. In M.'s group the subjects are English reading with a reading specialist, art, and science. The teachers have preparation and lunch period together for planning. Teachers also make home visits.

M. also sees the teacher of the severely hard of hearing for a period every day for language training. This teacher has frequent conferences with the classroom teachers to correlate their language program with the needs of the child in the classroom.

To help M. meet her social needs, a Spanish-speaking girl has been assigned to her to meet her at the bus and go to lunch with her. This girl has also had previous social problems but has been helped through counseling.

The following is a sample of M.'s language pattern:

> Description of Myself
>
> I have a brown hair and a little bit long.
>
> I am a Mexican girl and I have a light brown face-leg-arm.
>
> I am medium in height. I don't know how heavy I am. I little fat.
>
> I have a friend her name is Alice. Sylvia, Ann Veronica, Mary, Susy and Dorman. They are Alice sister's.

Mrs. Potter: D. is fourteen years old and is totally blind with complete hearing loss. His visual handicap was first noticed at the age of four years. He entered kindergarten as a partially sighted child. In the first grade, D. was enrolled in a home-teaching program. Because it was felt he was of above average intelligence, he was then enrolled in a resource room for the visually handicapped in a public school for second grade. During the next few years, his hearing loss was becoming more profound and he was fitted with a hearing aid. His school performance, however, continued to be outstanding.

When D. graduated from sixth grade, it was recommended that he make the transfer to our district, as our program was gradually absorbing the totally blind children in his district of residence.

It was recommended that D.'s parents pursue the possibilities of entering him in the State School for the Blind at Berkeley, since this is one of the few schools in the United States which has a blind-deaf program. The family would not consent to D.'s being taken out of the home, but his father did consider moving to Berkeley. He was unable to obtain work there, however, so this plan failed.

D.'s seventh and eighth grades were spent in a resource room program. D. attended regular classes one-half day every day with the aid of the resource room teacher. He was taught the one-hand manual alphabet which he can use with dexterity. At this time, there was complete loss of hearing in the left ear and 86 per cent loss in the right ear. The hearing aid was of no benefit and, in fact, was becoming most annoying to the child. Communication was also carried on through the Braille writer and the typewriter.

Again, upon his graduation from the eighth grade, all agencies, personal and at the state and national levels, were approached concerning the best method of educating D. The parents were still adamant in their refusal to send D. away from the home and insisted he be educated in the public schools. The consultants in the deaf programs felt they could not educate him because they use lip reading in their instruction and, furthermore, they do not have a traveling teacher program to assist us.

The most helpful suggestions came from the Services for the Deaf-Blind Children, American Foundation for the Blind, New York City. Through letters and telephone conversations, we were able to assemble the following program, and it is under these conditions that D. is being educated today in the ninth grade:

D. is transported by his parents to our high school, whose staff is familiar with the visually handicapped program.

A special teacher determines the specific activities in which D. will participate.

D. is in school for one-half day every day, including two periods of classroom work with an interpreter and one period with the special teacher. More classroom periods will be added if justified.

The special teacher selects and arranges for student interpreters to communicate the lessons and classroom discussion.

This procedure has been followed, with successful results. Due to D.'s high intelligence and the fine cooperation of the entire school staff, the first month of school has gone smoothly.

This case illustrates how necessary it is to have cooperation and to meet together as districts to discuss the education of the multihandicapped.

There are great possibilities for the services of a specially trained traveling teacher, which could be made available through district agreement. This could be one of the answers for educating a multihandicapped child in our public schools. In view of this point, our program for the visually handicapped is scheduling regular periodic visits to four multihandicapped children in other districts.

Summary of Additional Comments by Panelists

These case histories, in addition to other experiences of the panel members, led to the following summary statements:

- A need exists for highly trained individuals to comprise diagnostic teams representing many disciplines. These team members should observe, evaluate, and periodically reevaluate multihandicapped children to avoid long term placement in unsuitable facilities.

- A need exists for a central registry and annual reporting of all handicapped children. Reporting should include the diagnosis by the first agency serving the child and should continue throughout the diagnostic and training phases of the individual.

- Some multihandicapped children can be provided for in established special education programs if careful planning, programming, and periodic reevaluation is provided.

The Clinician-Educator and the Multihandicapped

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The Problem and the Dilemma

The multihandicapped child, although frequently presenting a cross-section of symptoms well known to presumably separate categories of exceptionality offers an indictment of our past and simultaneously a challenging opportunity for tomorrow. The child with more than one major disability poses a direct confrontation to those unfounded generalizations and expedient standardizations that heretofore have marked the unplanned and haphazard growth of Special Education. The maturity of our field may well be measured by our response to the multihandicapped and particularly by our conceptualization of the role, function, and preparation of the teacher.

With his myriad of disabilities and learning handicaps, the multihandicapped child points to still more unmet needs and reflects with each decade the widening gap between accumulated knowledge and actual practice. Despite an unprecedented period of growth in the education of exceptional children and youth, the U.S. Office of Education in 1965 estimated that 60,000 special education teachers were on duty, but that 300,000 trained teachers were needed.

Mackie (1962) earlier "estimated that 200,000 are needed and only about 50,000 are available." In addition to the increasing manpower shortage, equal concern was expressed over the quality of special educational services: "The major roadblock to adequate educational opportunity for these children is the lack of scientifically tested knowledge on how to best provide for these children" (p. 1).

Criticism of special education, paralleling general education, has been abundant during this decade. Yet, since World War II services have been extended to a wider variety of disability groups, and resources of interdisciplinary and interagency approaches have emerged, resulting in professional manpower shortages. The most recent additions have been for such categories as the "brain injured," "learning disabilities," and the "multihandicapped." Although the severely mentally retarded, cerebral palsied, and emotionally disturbed only relatively recently have enjoyed national attention, apparently new categories continue to be added to the growing list of "neglected" children. Sporadic expressions of concern have been stated over this continued development of special educational services to presumably distinct groups of children as indicated by medical and psychological models. In a most enlightening critique of this current development, Lord (1967) traces the background of this process and suggests a newer approach to the classification of exceptional children and their implication for the preparation of special educators:

> I am stressing the point that we have established fairly rigid grouping of children and I wish to imply now and explain later, that many of these labels are not very descriptive of the children in these groups as we find them today (p. 48)
>
> Hence, we find our legal definitions of disabilities and the well-defined laws relating to eligibility for admission to special classes. These definitions and the stated or implied admission standards became fairly uniform throughout the country. States contemplating legislation read the laws of other states and essentially incorporated the same provision in their proposals. Again the eligibility standards were tied to rather rigid disability categories. A child had to be 'in the category' to get the service....
>
> Today California, like most other states, prescribes a somewhat separate set of course requirements for each special education program. California has five separate education minors under the new credential pattern (p. 49).

New Jersey has in fact extended its six special educational certifications to eleven separate categories of exceptionality. It is of interest that California and New Jersey, among other states, have extended their legal provisions for additional categories and simultaneously excluded the "gifted" and the "educationally handicapped."

Commenting on the relationship between state certifications and the teacher education curricula for special education, Cruickshank and Johnson (1967) appear critical of the general quality of services to exceptional children as reflecting this process: "The end result of the situation which has just been described is the possibility that teachers are prepared with minimum competencies when maximal skills are essential (p. 132)."

Having grown from medical and psychological models, special educational categories and their resultant state certifications and teacher education curricula continue to present conflicts regarding our knowledge of exceptional children and our service to them. New Jersey (1912), in establishing the first state legislative provisions for the education of handicapped children in the public schools, expressed several fundamental concepts over fifty years ago:

> In providing for a "thorough and efficient system of education" there are, among others, two theories of importance which determine effective practice or administration. First, all the children, and not merely some of them, should receive the benefits of education. Second, there are differences in the nature of children which must be taken into account in the courses of study and in the organization of schools.

From this auspicious beginning, with subsequent revisions in legislation (1917, 1924, 1954, 1959, and 1966) New Jersey gradually extended special services in the public schools to the physically limited, socially and emotionally maladjusted, speech defective, etc. Continuous efforts at providing for "all the children, and not merely some of them," has produced the current legislative provisions for eleven classifications of handicapped children:

Mentally Retarded

Visually Handicapped

Auditory Handicapped

Communication Handicapped

Neurologically or Perceptually Impaired

Orthopedically Handicapped

Chronically Ill

Emotionally Disturbed

Socially Maladjusted

Potentially Severe Learning Disabilities

Multihandicapped

The apparent contradiction between concept and practice is not unique to New Jersey. Whereas we appear to be striving for an all inclusive mandate to serve "all the children" we continue to present additional categories, assuming we will eventually cover all the possibilities.

Offering an alternative for Special Education, i.e. "the *individualization* and *specialization* required to comprehend the capacities, the limitations, and the needs of each exceptional child," (p. 4), Lee (1953) urged for a unified approach in our field:

> The whole purpose of special education is to alleviate each child's disabilities, to remove or minimize his limitations, to increase his capacities, and then provide those individualized opportunities and those specialized services which will profit him most within the range of what he can do and what he can become (p. 4).

Essentially, in spite of frequent expressions of concern over the growing categories of disability groups with their accompanying *generalizations* and *standardizations* we continue to add labels, develop new legislation and the resultant additional patterns of service for presumably distinct needs of exceptional children. Furthermore, our collegues and universities, reflecting this process, currently prepare teachers for each of the apparently distinctly different types of children.

Submitting the *generalizations* and *standardizations* to the test of empirical evidence is enlightening. The consequences of further categorization of services, upon an already critical manpower shortage, should immediately identify the folly of this procedure. However, out of the most recent additions to our categories, namely the "brain injured" and now the "learning disability" child, comes an unusual opportunity to face our own contradictions and perhaps offer several alternatives to those embarking on still another field, the "multihandicapped." The current phenomenal growth of programs and services for the "brain injured" child, as a separate category of special education with unique needs and presumably special pedagogy, was the subject for research as reported by Cruickshank, Bentzen, Ratzeburg, and Tannhauser (1961):

> The essential conclusion reached from this series of research projects is that, while generalizations can be made about the psychological characteristics of children with central nervous system disorders, significant variability obtains within any particular group of such children. It has been stated, and it is certainly true, that this group of children represents the epitome of the concept of individual differences. Within the group are those children who demonstrate in an extreme fashion all the characteristics of psychopathology. There are some who show certain characteristics in large degree while other factors are less obvious. Finally, there are other children with known central nervous system impairment who appear to demonstrate none of the classical characteristics of psychological impairment. The need for individual diagnosis is immediately apparent whenever educational placement or planning for a given child is seriously considered (p. 3).

Gallagher (1960) summarized reports of special educational methods for "brain injured" children and concluded:

> How useful it is from an educational view to have the neurological information that a child is brain injured?
>
> Does the educator not gain more information from the fact that a child is perceptually disturbed than from the fact that he is brain injured? Brain injury is the proper province of the neurologist; but the perceptual distortions, disinhibitions, and problems of association that sometimes occur in some brain injured children are the problems of the educator and the psychologist. It would seem reasonable to expect the educator to make his own educational diagnosis of each child's perceptual development, personality skills or language development, and make his plans accordingly whether or not a diagnosis of brain injury had been medically determined (pp. 32-33).

Simultaneously, despite the apparent contradiction between the concept of individual differences and special educational philosophy, special classes for brain injured children grew up overnight in New Jersey and many other states. Has there been any subsequent research that would support the classification, placement, unique methods and techniques, for such a presumably distinct category of exceptionality?

Recently, our attention has been focused upon the extension of this concept to what is referred to as the "learning disability" child. In their introduction to one of the most recent "texts" in the field, Frierson and Barbe (1967) define the term by emphasizing the confusion that exists today.

> Children with learning problems are called brain injured, neurologically impaired, emotionally disturbed, or are described as hyperkinetic, educationally retarded, immature, perceptually handicapped, or dyslexic. When faced with a child who has a learning problem, one has a natural inclination to label not only the type of problem,

> But also the child. In too many instances, hunches, or hypotheses, for all their eloquence and seeming logic, are merely educated guesses, neither supported nor disproved by sound research evidence (p. 3).

Johnson and Myklebust (1967) infer that a "new type of handicapped child has emerged" (p. 1), and discuss the recent attention to the "learning disabilities" era and raises several fundamental implications for the role of the teacher, not only for such children but for other fields of exceptionality.

> The teacher of the future will have more scientifically defined procedures for assisting deaf and hard of hearing, blind and partially sighted children in both learning and adjustment (p. 3).
>
> The implications for remedial education are numerous; different assumptions must be made in relation to children with learning disabilities. (p. 131)

The multihandicapped child should immediately signal the attention of all of us who have traditionally focused upon our own particular category of disability.

In discussing the implications presented by multihandicapped deaf children in his study, Vernon (1967) recognized the current inadequate remedial procedures for such children and suggested a kind of combining "the best from the disciplines" (p. 10) and "using the current combination diagnostic and corrective approaches to the learning disability, behavioral modification, preschool education, etc." (p. 11).

It should be clear at this point, that the multihandicapped child presents still another category of unmet needs as well as many of the unsolved problems inherent to the other presumably distinct fields of exceptionality. Children with combinations of handicapping conditions may offer the opportunity and challenge for the kind of approach long desired and sought after by workers in traditionally separate fields of special education.

A thoughtful and well planned approach to the special education of the multihandicapped may not only appropriately respond to to their individual needs, but may well mark the end of additional categories and usher in a new era for all exceptional children and youth. The alternative to our continued piecemeal approach is the maturation of our discipline into a concerted and unified assault upon our own body of knowledge which provides the basis for future patterns of service and professional manpower needs.

An Alternative and Challenge

Between the growing recognition of unmet needs and the resultant professional manpower shortage is the persistent theme of individual differences in the manner in which we have organized our services for children with learning and behavior handicaps. Bridging the gap between concept and practice is one of the formidable barriers to innovation and change in the educational establishment. And our apparent difficulty in translating accumulated knowledge into operational patterns is certainly not unique to education. But, the knowledge explosion and the growth of ideas far outstrip our capacity for implementation. I doubt whether I could pass a comprehensive examination in special education today with my preparation of yesterday. Students in our field today are not, in all probability, facing problems of tomorrow. Although we have added new equipment to the arsenal of knowledge, ERIC, abstracting services, computers, Instructional Material Centers, and Instructional Media Specialists, teachers will still be teaching in the year 2067. Instrumentation and other advances in technology will only serve to assist the teacher of tomorrow. Furthermore, it is increasingly certain that merely being equipped with knowledge in one field will hardly prepare an individual for work in tomorrow's world, if indeed for today.

Notwithstanding the varied social, professional, and technological forces influencing the evolving situation, one might develop as a fundamental thesis that the function and preparation of the special education teacher is one of the most decisive if not crucial variables. But, it would obviously appear as a gross over-simplification of an enormously complex problem to single out the teacher as the major culprit in this dilemma.

Following the rehabilitation center-type facility projected by Lord (1967), serving all exceptional children, regardless of etiology, classification, or manifest disability, the special education teachers of tomorrow will not all all resemble their function and preparation of today.

Functioning as an educational diagnostician and tactician, capable of diagnosis and remediating learning and behavioral handicaps, the clinical-educator of the future will resemble the interdisciplinarian and interagency worker currently being proposed by several closely allied fields in the health services professions.

In a discussion of the changing role of the pediatrician, facing a greater variety and demand for health services amidst an increasing medical manpower shortage, Haggerty (1967) offers several alternatives that may have direct implications for educators: "One suggestion that holds promise for alleviating the manpower problem is to recruit persons other than physicians to carry out, as members of a health care team, some of the services long expected of the physician. . . ."

School Psychology appears to be experiencing a similar self analysis as to role and function, particularly the question of identification, service, and preparation. Herein lies the challenge. Can our colleges and universities offer the leadership in initiating the required changes necessary to meet the growing needs from the field? Will the medical schools, schools of social work, and education respond to the increasing knowledge explosion, changing patterns of service, evolving roles of health related professions, by modifying their curricula? Can today's worker be prepared with yesterday's standards?

The multihandicapped child and his teacher offer to the participating disciplines and opportunity for a bold step forward in meeting the individual needs of children and simultaneously reducing the professional manpower shortage. The multihandicapped child, potentially representing all of the traditionally separate categories of exceptionality suggests the coming together of a variety of social, medical, psychological, educational, and rehabilitation personnel, for an effective assault upon the variety of disabilities and resultant handicaps. Any casual observer of such children would immediately recognize the need for an interdisciplinary interagency approach to the complex problems of the multihandicapped.

Projecting this concept further, one might suggest a kind of *consortium* of professional disciplines, initially on the college and university level for the preparation of needed personnel, and subsequently to the total rehabilitation type facility required. The consortium would provide the arena for each discipline to redefine its specific school-related role and function for the changing population and patterns of service. Modification in their respective curricula would logically follow such deliberation. As an interdisciplinary council, with the appropriate administrative support and structure, the ensuing preparation programs would more likely resemble their anticipated function than in the past. The "team approach" would actually constitute a pre-service segment of professional preparation.

What greater opportunity exists for the "interfirm, interoccupational, and interarea" role than at the college or university level? The combining of knowledge for the best "diagnostic and corrective approaches to the learning disability, behavioral modification, etc.," must be demonstrated at the preparation level if it is to be ultimately effective in the practitioner's field. Curricula planners from the consortium would jointly determine the extent and scope of the integrated experience in both academic and laboratory settings. Evolving out of this cooperative venture would be a modified sequence of experiences for each of the disciplines.

Preparation of the clinician-educator for special education, Schwartz (1967), would then perhaps attain the long sought after objective of the field. The inspiration and idealism of Jacob Pereire (teaching the deaf to speak), Valentine Hauy (education of the blind), Jean Itard and Edouard Sequin (education of the retarded), coupled with the hopes of Samuel Laycock (every teacher a diagnostician), Samuel Kirk (diagnosis and remediation of learning disabilities), and the current emphasis on clinical and prescriptive teaching, can become the reality of tomorrow in our approach to the multihandicapped.

Integrating and synthesizing our knowledge of the individual differences in growth and development, with emphasis on the learning and behavioral difficulties of the multihandicapped, provide the setting for the future clinician-educator. Prepared as a "diagnostician and tactician" and "instructional specialist" capable of serving each and every exceptional child, regardless of labels and categories more nearly would reflect the heterogeneity of children and appreciably reduce the manpower needs in the field. Schwartz (1967) proposed an integrated teacher education curriculum for special education as an alternative to the current dilemma facing our profession. Replacing all of the separate certification-based curricula in special education with a combined course of study, observational and practicum experiences, the proposed program emphasized child study, learning disabilities, and remediation, that would prepare the special educator for service to all exceptional children.

Never before have we had the opportunity to take such a giant step forward in the maturation of our profession. The phenomenal growth of services to exceptional children and youth has clearly identified earlier contradictions and current dilemma facing special education and rehabilitation services. Our response to this challenge would insure the thoughtful planning and innovative models designed for tomorrow's reality.

"California: The Experimental Society" (*Saturday Review*, Sept. 23, 1967): "For this is indeed where the future will be made—is already being made, with all the noise, smog, greed, energy, frequent wrong-headedness, and occasional greatness of spirit that are so American and so quintessentially Californian (p. 28)."

The challenge is yours! The multihandicapped child needs and deserves the multipurpose teacher who can only function in the multidisciplinary consortium.

Bibliography

Blackman, Leonard S. The Dimensions of a Science of Special Education, *Mental Retardation.* 1967, *5*, 7-11.

Cruickshank, William E. The Multiply Handicapped Cerebral Palsied Child, *Exceptional Children.* 1953, *20*, 16-22.

Cruickshank, William E. and Johnson, G. Orville. *Education of Exceptional Children and Youth.* 2nd Edit., Englewood Cliffs, N.J.: Prentice Hall, Inc., 1967.

Cruickshank, William E. and others. *A Teaching Method for Brain-Injured and Hyperactive Children.* Syracuse University Press, 1961.

Frierson, Edward C. and Barbe, Walter B. *Educating Children with Learning Disabilities: Selected Readings.* New York: Appleton-Century-Crofts, 1967.

Gallagher, James J. *The Tutoring of Brain-Injured Mentally Retarded Children.* Springfield, Ill.: Charles C. Thomas, Publisher, 1960.

Gellman, William, New Perspectives in Rehabilitation, *Bulletin, Division* 22. American Psychological Association, 1960, 13, 40-47.

Haggerty, Robert J. Pediatric Training and the Manpower Problem, *Childred.* 1967, *14*, 90-96.

Johnson, Doris J. and Myklebust, Helmer R. *Learning Disabilities: Educational Principles and Practices.* New York: Grune & Stratton, 1967.

Lee, John J. Landmark on the Highway of Social Advance, *Exceptional Children.* 1953, *20*, 3-10.

Lord, Francis E. Medical Classification of Disabilities for Educational Purposes—A Critique, Fifth Annual Distinguished Lecture Series in Special Education. Univ. of So. Calif., 1967.

Mackie, Romaine P. Education of Exception Children: Programs, Progress, Problems. *School Life*, July, 1962.

New Jersey, The Treatment of Subnormal Children, N.J. Dept. of Public Instruction, Trenton, N.J., May, 1912.

New Jersey Commission on the Education of the Handicapped. *Report.* N.J. Dept. of Education, Trenton, N.J. 1964.

Saturday Review, Editorial by Wallace Stegner, California: The Experimental Society. September 23, 1967.

Schwartz, Louis. An Integrated Teacher Education Program for Special Education—A New Approach. *Exceptional Children.* 1967, *33*, 411-418.

Schwartz, Louis. Preparation of the Clinical Teacher for Special Education: 1866-1966, *Exceptional Children.* (In press).

Thompson, Wilbur R. *A Preface to Urban Economics,* Baltimore, The John Hopkins Press, 1965.

Trippe, Matthew J. Educational Dimensions of Emotional Disturbance Past and Forecast, *Intervention Approaches in Educating Emotionally Disturbed Children,* Syracuse University Press, 1966.

Vernon, McCay. RH Factor and Deafness: The Problem, Its Psychological, Physical, and Educational Manifestations, *Exceptional Children,* 1967, *34,* 5-14.

Zach, Lillian. The Paradox in School Psychology: Extra and Intramural, *American Psychologist,* 1967, *22,* 657-659.

Educational Planning for the Multihandicapped Child

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As we consider a new classification of exceptional children, it is important to review some of the problems we have faced in dealing with classifications in the past and in the mounting of effective educational programs for children in the traditional categories.

The first problem we are faced with is the possibility of an "umbrella crisis." Exceptional children at present are grouped under categories or umbrellas such as deaf, hard of hearing, mentally retarded and so on. The multihandicapped approach implies the erection of slightly larger umbrellas, some to cover two existing umbrellas, some to cover three and so on. As teachers have identified in the past exclusively with the single umbrella categories we have the nightmarish possibility of new identities with the overlapping umbrellas which will greatly compound our difficulties in teacher preparation—particularly if we pursue a specialist orientation.

I believe the introduction of the category "multihandicapped," however, is a wise move in special education since recognition of the specific learning needs of children with two or more handicapping conditions is essential. Their problems are not merely additive (e.g. give the deaf-blind child half a program for the deaf and half for the blind) but often very unique, requiring innovation, as well as resourceful and creative planning. I also am pleased with emphasis on the multihandicapped because it may well mean a step in the direction of a more generalist approach in the entire field of special education.

For the past several years, the staff of the UCLA Neuropsychiatric Institute (NPI) School has been developing a generalist approach to the teaching of children with learning problems. We started out trying to establish a truly educational frame of reference for assessing and programming emotionally disturbed children, but soon found out we were covering a much broader group. Emotional disturbance has never been contained under a single umbrella. While there are children whose primary problem is one of maladaptive behavior, there are many more who have additional handicapping conditions (e.g. mental retardation) in combination with learned disturbed behavior patterns. For some of these children, the primary handicapping condition may actually be emotional disturbance rather than a physical or intellectual disability; but for most it may be a problem of secondary importance. Because we had to take this overlapping phenomenon into account, the results of our work to date apply equally well to all exceptional children and not just to those in the "pure" category called emotional disturbance.

We have conceived of a developmental sequence which describes behavior all children must possess if they are going to succeed and learn in school. The behaviors on the sequence are presented in educational terms and imply goals teachers know something about and can do something about in the classroom. A serious problem we have faced in the past is reliance on 'second-hand' terminology from other disciplines such as medicine, psychiatry, pediatrics, neurology, and clinical psychology. We seem to have been easily intimidated by the authority of these other disciplines and the extra-educational aspects of the child's problem. The time is long overdue for such intimidation to be brought to a halt and for the teacher to emerge as the "star of the show" in treatment and rehabilitation of all exceptional children. This does not mean abandoning the many essential and worthwhile benefits to be gained from focus on the "whole" child and the utilization of multidisciplinary information; rather, it means we must exert ourselves to a greater degree as the major professionals who will affect the course of the child's life as he learns about and adapts to his environment. We must stress and bolster the identity of individuals in special education as teachers—not junior psychiatrists or pseudoneurologists.

The development sequence of educational goals formulated by the staff of the NPI School includes seven levels. The first four levels are essentially readiness levels for learning and are largely mastered by normal children before they enter school. The failure of a child to master these then becomes the justification—educationally— for considering him handicapped. Level one is the *attention* level where contact between the child and his environment is initiated. Children must learn to notice relevant cues, remember what they see, and pay attention to teachers who present such cues. The second level is called *response* and is concerned with getting the child to do something in the presence of certain discrete stimuli presented him. On level three we have *order*. Children not only must notice something and do something; they must also learn to follow directions—start, follow through, and complete a task according to a specified routine. Level four we call *exploratory*. Here we are concerned with the child's attending, responding, and following directions in a multisensory context through looking, listening, and touching. Behaviors associated with accurate and complete sensation, perception, and motor efficiency are covered by this level. The *social* level is number five. Here it is the child's learning to gain the approval of others and avoid their disapproval that is essential.

Following these five readiness levels are two final levels, *mastery* and *achievement*. The mastery level focuses on acquisition of self-care and cognition skills commensurate with the child's intellectual capacity. The achievement level focuses on the development of self motivation in learning.

We have devised an assessment approach that allows us to evaluate the child in terms of his adequacy at each of the seven levels. Following this, we use an engineered classroom design which is set up with specific centers to foster development of attention-response-order behavior, exploratory-social behavior, and mastery-achievement behavior. The design utilizes a behavior modification approach and check marks, exchangable for tangible rewards, and are administered to each child every fifteen minutes. The rooms have nine students, a teacher, and teacher aide. Over the past year we have participated with the Santa Monica Unified School District and, through the efforts and support of Dr. Frank Taylor, Director of Special Services, and Dr. Alfred Artuso, Superintendent, have established eight of these classes on the elementary level for the educationally handicapped. Dr. Taylor and his staff have developed unique curriculum tasks which are used in the classroom to assist the child in developing competencies on the various levels of the developmental sequence.

Current plans call for extending the use of the developmental sequence and the engineered classroom design to primary and secondary levels and to classes for the educable mentally retarded.

The implications for use of this approach with the multihandicapped are most promising and, hopefully, will introduce a more generalist and truly educational emphasis to the field of special education.

PANEL: Innovations in Teacher Preparation of Multihandicapped Children

CHAIRMAN: *Leo F. Buscaglia*, Ph.D., Assistant Professor of Special Education, University of Southern California

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Dr. Mayer: One possible approach to the preparation of teachers of the handicapped child might be titled the "Separate Strand Approach." The characteristic features of this program include a separate strand of preparation for each area, e.g. visually handicapped or deaf, plus an additional strand for teachers of the multihandicapped. A common core of courses comprise a part of the "rope." The difficulty with this approach is to determine how many of the strands are required for teachers of the multihandicapped. It would appear that a teacher should have them all, yet this is unrealistic in terms of course hours that would be required.

A second approach is termed the "Secondary Disability Approach." The prospective teacher of the multihandicapped might prepare in a major area, as at present, with additional work in a secondary area. However, this program could total as many as fifty additional semester hours and appears to be an unreasonable expectation.

A more realistic approach is an attempt to make the "rope" longer and the strands shorter. A program could be developed in which related strands would be interrelated, thus permitting the teacher to become proficient across categories.

Dr. Jordan: A number of persistent problems exist to challenge the educator concerned with the preparation of teachers of the multihandicapped. Among these problems are the following:

- When multihandicapped children are grouped together we have multi-configurations of handicaps.
- There exists a definite shortage of master teachers in this area.
- A corresponding shortage of supervisors with experience in this area is a problem of equal proportions.
- Multihandicapped children are often unattractive children.
- It is far more difficult to recruit teachers of the multihandicapped than for a single disability.

Fortunately, along with these problems are some real opportunities for the special educator. Included in this list are the following:

- Barriers between areas of handicapping conditions may be dissolved.
- Similarities between areas will become more apparent.
- Opportunity to delay action until we have done our homework, until the problem of multihandicapping conditions expands.
- Increased communication between the general education program and special education may occur.
- Innovations in teacher preparation are possible as never before. Among these innovations are exploration of micro-teaching techniques, utilization of video-tape recordings, and continuous feedback systems from students to teachers.

Miss Templeton: The existing credential structure in California does not truly differentiate programs of preparation on the basis of learning potential of the handicapped children. We need to find ways to describe the teachers' role as he works with the child and to develop labels that clearly predict outcomes for children. We must keep in mind that labels can be damaging—in some cases more damaging than the handicap itself.

We should try to humanize the professional preparation program in such a way that we are not so concerned with becoming efficient in doing things *for* children as we are in doing things *with* children. Education is a "people business."

In conceptualizing a preparation program, four strands should be considered:

- The personal development of the teacher. This may be accomplished through awareness groups.
- An understanding of the behavioral development of children.
- Knowledge of how the handicapped child will be accepted in the home and the community.
- Opportunity to experiment with the "professional self" while working with children and with resource persons.

Miss Jackson: Permutations for the six major handicaps, hearing impairment, visual impairment, mental retardation, emotionally disturbed, educationally handicapped, and orthopedically handicapped, indicate that there are over fifty possible combinations of handicapping conditions. The addition of one other handicap to the list would yield over a hundred possible combinations. It seems under these circumstances that further categorization and program proliferation, even if desirable, would prove impossible from a practical standpoint.

Adding more and more courses to the college catalogs and adding credential upon credential likewise seem impractical. In order to get a teacher for deaf-blind multihandicapped youngsters does one take a teacher of visually handicapped, add a credential to teach the deaf and then whatever other credentials are necessary for the other handicapping conditions found in the rubella child?

In anticipation of the beginning of the program to prepare teachers for deaf-blind children, a program nearly three weeks old now, faculty members from the Department of Special Education at San Francisco State College had a brain storming session, the result of which was the initiation of a preschool program for deaf-blind children in which Mr. Hatlen and I along with our students hope to learn from deaf-blind children and their parents while they are learning from us. Next Monday, four deaf-blind children between the ages of 2-5 and 3-0 and their parents will begin a three-day-a-week, two-hour-a-day program at St. Luke's Episcopal Church in San Francisco. The emphasis of this program will be on auditory, visual, and tactile stimulation and on language development.

Through this program, we hope to prepare teachers for diagnostic teaching. Through a study of child development and through careful observations students learn to evaluate children in terms of their needs and to arrange experiences for which they are capable and which will lead them to further development. Video-taping of sessions will enable the students, faculty, and parents to evaluate progress.

Dr. Hatlen: Despite the fact that during this conference it has been stressed time and again that there is a great need for educational services for multihandicapped children, it is true that a number of teachers are already working with these children in public and residential schools throughout the state. The importance of this fact should not be minimized, for it is from the experience of these teachers that the greatest contribution to teacher preparation has and will continue to come. Also, teachers who have accepted the challenge and responsibility of working with multihandicapped children, sometimes beyond the scope of their original responsibilities, should be commended and recognized at such a conference as this.

There are three general techniques in use at San Francisco State which are attempts to meet the need for teachers of multihandicapped children. The first two are adjustments in current curriculum, the third involves the establishment of new programs.

■ One, it is not only possible, but in almost every case probable that each student in the Department of Special Education will be required to take several classes in areas of education of exceptional children other than his major as electives in his credential program. This is a pattern that has been used widely in a number of colleges and universities and in many cases will provide the prospective teacher with knowledge and skills necessary to deal with some of our multihandicapped children.

■ Two, while the red tape at times seems most difficult to overcome in terms of adding new courses in our state colleges, it is comparatively easy for individual instructors to adjust the content of courses already offered. And this is happening more often as our Special Education Department recognizes the need for this through the staff's close contact with practicum facilities and recognition of the needs of children in these facilities.

For example, a course which I teach entitled, Methods of Teaching the Blind now includes a good deal of course work related to the educational needs of the multihandicapped blind children.

■ Three, the recent establishment of several new programs at San Francisco State College in the Department of Special Education should not go unnoticed. Four such new programs within the last year are in the area of preparation of teachers for emotionally disturbed, neurologically handicapped, deaf-blind, and the preparation of mobility instructors for the blind. All of these programs offer new courses and interdisciplinary involvement. Only one of these specifically relates to multihandicapped children, that is education of deaf-blind children. This program has been well covered by Miss Jackson and I will not elaborate at this time.

It is impossible to discuss preparation of teachers without first recognizing and being cognizant of the needs of children, particularly the multihandicapped. This should be recognized and appreciated by anyone contemplating services for these children, either at the teacher-preparation level or at the direct service level. These children may fall into one of two very general categories:

■ Some multihandicapped children need and may benefit from additive special education services. This is a practice which has been going on for some time in most of our educational programs for exceptional children.

For example, a child with a vision problem who is also emotionally disturbed may be served effectively in an educational facility by a teacher for visually handicapped children and a school psychologist or guidance worker.

■ However, it is most important to recognize the fact that some multihandicapped children are in need of totally new and different services. The sum total of their impairments, due to a combination of handicapping conditions, results in an entirely different type of child. For example, the deaf-blind child cannot be served effectively in a program for deaf children with occasional assistance from a teacher for visually handicapped. The reverse is also true. There is little we know at this time about the effects of multihandicaps in creating new and different educational service for children, but it is something that we are going to have to watch carefully and closely and attempt to prepare teachers in these highly specialized fields.

A basic need for any teacher is a very good understanding of early child growth and development. While this need should not be confined entirely to those teachers who will be working with multihandicapped children, it becomes even more urgent for these individuals. Many multihandicapped children are on a young developmental level, and their needs in an educational setting are not met by the traditional education approaches. Rather, the needs of these children more closely resemble those of the two, three, or four-year old child. For this reason it is extremely important that teachers being prepared to work with these childern are as much as possible aware of early child growth and development.

Mr. Taft: Teacher preparation programs should impress teachers with the knowledge that there is really no such thing as a child with a *single* handicap. Prescriptive teaching is essential when one realizes this. Programs should include study in each of the following areas:

- Growth and development of the child.
- Effect on the pattern of growth and development when an aberration occurs.
- Physical, psychological and sociological aspects of exceptional children.
- The importance of careful study of each child along with resources available to help compensate for the handicaps each child has.
- Diagnostic testing to enable the teacher to teach prescriptively.
- Skills in working with a diagnostic team.
- Skills in working and communicating with parents.

The student should have access to clinical observation, intern teaching with multihandicapped children, a good instructional materials center, and teacher consultation experiences with a psychiatrist and/or a clinical psychologist.

Mr. Mallek: Teacher preparation should begin below the college level. "Project Understanding" in the Grossmont Union High School District does this by involving the high school student in special education programs. This project has three phases:

- Students are exposed to six or eight college-type lectures on exceptionality.
- Students participate in the classroom for a period each day for a year.
- Students deliver talks to other high school classes and in effect "sell special education" to the nonhandicapped population.

Dr. Schwartz: We must face the problem of "what is special about special education?" and base much of our teacher preparation programs upon the answer to this question. It will undoubtedly lead us more closely to a "clinical-educator," a prescriptive teaching approach. We will become increasingly aware that we cannot entrust our handicapped children to a poorly prepared teacher.

Preparation ought to begin at the undergraduate level and proceed through precisely defined and articulated sequences of graduate and postgraduate programs of study.

PANEL: Legislative Needs in Providing Effective and Innovative Services to the Multihandicapped

CHAIRMAN: *Virginia Templeton,* Coordinator, Programs for the Mentally Retarded, Orange County Schools Office, Santa Ana, California

Edward Ahrens, Supervisor, Special Education, Long Beach Unified School District, Long Beach, California

Lloyd Jones, Assistant Superintendent, Garden Grove Unified School District, Garden Grove, California

Arthur Phelan, Chief, Bureau of Program Development and Evaluation, Special Education, California State Department of Education, Sacramento, California

Charles W. Watson, Chief, Bureau for Physically Exceptional Children, California State Department of Education, Sacramento, California

David C. Wright, Director, Student Services Department, San Diego City Schools, San Diego, California

Mr. Watson: Your deliberations have led to the surfacing of numerous factors related to the effective education and training of multihandicapped children. It is obvious to all that a number of these will require legislative attention. Time isn't available to consider these in their totality or in the necessary detail and depth. However, this body should have some of the more salient points enumerated for the record.

The order of such enumeration is not too important. However, the Legislature needs to set forth what the policy of the state is to be relative to the education and training of multihandicapped children. Among those benefiting from such action would be the Legislature through the direction given to its actions relative to these children. Certainly there is no need to elaborate on the importantce of having state and local agencies know the policy they are to pursue relative to the education and training of multihandicapped children.

Once policy has been established, the next step is to spell out the responsibility of the several segments of the school system relative to providing education for these children. More specifically when, where, and under what circumstances is a district, a group of districts, a county, a region, and/or a state agency to be responsible. Going hand in glove with this will be providing the authority necessary for these to carry out the responsibilities that are assigned.

Establishing policy, assigning responsibility, and granting authority will not, in themselves, suffice. As long as provisions for adequate financial support are lacking, scarcely any progress will be made. Not only must the funding be adequate to the nature of the education and training task entailed, but the statewide rather than the local community should be called upon to bear the major portion of the costs involved. Very precise provisions will need to be enacted for assuring local financial support to the extent it is to be expected.

Authority granted school systems to make provisions for multihandicapped children should have flexibility sufficient to permit more than one type of program. The nature of the instruction and training problem involved make opportunity for exploration and innovation essential. It should not be necessary to approach the Legislature for authority to undertake every innovation. The approval of such innovations by the State Board of Education, or the Superintendent of Public Instruction, should be adequate.

Much has emerged as to the role of parents. Certainly involving parents in the education and training of their multihandicapped children carries implications for legislation. The nature and extent of their involvement will need to be determined. Authority and financial support for this involvement will need to be procured. Involving parents in a way to be significant or productive is not likely to be simple or without substantial cost.

It is not certain that those from teacher preparation programs will be leaving with a reasonably clear concept as to the nature of the specialized professional preparation needed by teachers and others to be engaged in the teaching and training of multihandicapped children. The need for trained professional and para-professional personnel will be substantial. At present very few such persons are at hand.

Our colleges and universities will be expected to supply the needed trained personnel. Some legislative direction needs to be given to the Coordinating Council on Higher Education, the Board of Regents, and the State Board of Higher Education, as to steps that need to be taken for supplying such personnel. Of course, budget provisions must be assured to enable them to carry this additional task. The State Scholarship Commission should be authorized to grant scholarships, fellowships, and make student loans to help attract persons to careers in this area of the special education field.

Of course, the foregoing barely touch the extent of the need for legislative action. I trust, however, it has identified several of the major needs. Before concluding my comments, I would like to identify several possibilities that appear hopeful as the result of current legislative developments.

A significant one immediately ahead has already been reported to you by Mr. Rulofson concerning Development Centers for Handicapped Minors. Not only is the prospect for an additional number of centers excellent, but opportunity seems near at hand for substantially upgrading the quality of the programs in those already established.

The impending modification in the program of state school support for special education will present you with a number of challenges. It would appear that some districts or county superintendents could utilize the special day class allowance to establish programs for multihandicapped children providing one of the handicaps existing was a physical handicap.

There is some prospect for a better picture as to the number and location of multihandicapped children. As we get into the implementation of the provisions of AB 168 particularly, opportunity of developing such information will emerge.

In closing, may I point to AB46 and AB338 which, in my opinion, should further contribute to programs for the multihandicapped. The former charges the county superintendent with the responsibility for coordinating special education programs in the county. Under such leadership countywide planning should begin to emerge and include provisions for multihandicapped children. The latter will make it easier for the county superintendents to secure needed classrooms, furniture and equipment for exceptional children they are required to educate.

Mr. Wright: Should the public school system have the responsibility for educating multihandicapped children? If our goal is to educate *all* people to become useful, productive citizens, then the answer has to be "yes." San Diego City Schools have met the challenge by offering extensive services for the exceptional, including the multihandicapped. For example, a program serving fifty-three multihandicapped children includes forty-three educable mentally retarded-orthopedically handicapped, seven deaf-orthopedically handicapped, two blind-educable mentally retarded, and one deaf-blind child. Other multihandicapped children are also being accommodated.

The future of such programs depends upon increased financial support. The Legislature has shown its concern through recent legislation, but more is required. We need state reimbursement for housing, additional physical and psychological diagnostic services, educational clinics, and sheltered workshops. The demand for vocational training of the multihandicapped far exceeds the opportunities. Increased equipment and finance must be given to the "pay off" period of training.

Mr. Ahrens: We have approximately 128 teachers working with about 2,600-2,700 students with special needs in the fourth largest school district in the state, at Long Beach. We have many multihandicapped children in our classes with rather clean-cut diagnoses of retarded children with problems of hearing, sight, speech; or is it deaf children with problems of sight, retardation, speech; or is it partially sighted with problems of speech, hearing and retardation? Anyone who has ever been in a special education program knows these few. As we move into schools for the TMR and OH pupils, the handicaps become more severe and complex. We have been able to provide for a TMR who is also CP, deaf and with speech problems; a CP who is deaf, EMR and with speech problems; and a CP with blindness and emotional problems. In such a school setting we have a full-time speech teacher and a half-time teacher of the deaf.

By state law we are not permitted, nor do we expect a teacher who holds a regular credential to teach the EMR, OH, blind, etc. Then why is it that we expect a credentialed EMR teacher to also be highly proficient in speech, or an OH teacher to also teach the deaf or any combination you can name? It is foolish to expect any one teacher holding the label, "special educator," to be all things to all people. Yet from a financial point of view this is exactly what is expected. Except for speech teachers, it is difficult to assign a teacher of the blind or deaf, to work with classes of other handicaps and receive any excess cost reimbursements. If we are going to provide anything other than self containment or baby sitting, we need to recognize that it is expensive and that someone must pay the bill. I propose that legislative steps are needed to alleviate this situation.

If we really want to provide a service for the multihandicapped children in terms of education, with the hope that we will help them meet their ultimate degree of self sufficiency and performance, we need an adequate diagnosis and classes for referral. This diagnosis should take place in an educational setting where the child can be seen in relation to his environment. The one-to-one relationship with the doctor, the psychologist, the social worker, and others is important, but it does not give the whole picture. Enrollment in such a class would be limited in size and length of time. Following this period of observation and diagnosis, an educational plan or prescription would be made and the child placed accordingly.

Mr. Jones: The following legislative needs exist in California:

■ A modification of the current elementary class-size formula is needed, so that physically handicapped pupils in integrated programs will not prove to be an enrollment burden, nor impose a financial penalty upon the school district when placed in regular classes.

■ Full class reimbursement should be given for integrated programs with over fifty per cent enrollment, so that districts will be encouraged to continue the resource room approach which has been advocated by the state.

■ Financial support should be guaranteed for the purchase of large print and Braille books for VH students at the secondary level. The current federal funding is in the third and last year of its present phase. It should be extended, or state funds should be provided.

■ Workshops for experienced special education teachers should be provided, and financed as this Institute is, to bring new, fresh ideas to teachers who have been in programs for several years. Summer workshops for beginning teachers have been jointly operated very successfully by county schools offices and colleges. We should give some of our old-timers the same kind of a shot in the arm.

■ Some method should be established to provide maximum reimbursement for itinerant service to the MR student who is also VH or HH, but can best be served in an EMR or TMR class.

■ A state and/or national board of review should be established to grant reciprocity for the special education graduate who seeks certification in another state. The recruiter who travels far and wide, or who interviews out-of-state graduates in his office, should be able to safely assume that a special education student who graduates from the program of any institution on an approved list, would be able to obtain a California credential corresponding to that which he earned with his bachelor's degree.

■ County schools offices should be given the opportunity and financing to establish centers for multihandicapped students in areas where a high concentration of population does not exist in a single school district. These advantages would result:

a. Enough students could be drawn from surrounding districts to present a broad program serving several exceptionalities over a wide range of ages.

b. Teachers with various abilities and backgrounds of preparation could be employed, to serve these children.

c. A sizeable staff could develop a well-articulated, team-teaching program, utilizing teacher strengths.

d. Nearby colleges and universities could cooperate in the development of these centers as laboratory schools, for teacher training and recruitment.

e. Public health and welfare agencies could be involved.

f. Children from child development centers could be enrolled as they progress above established levels.

g. Parents could be given expert counseling from members of the various disciplines and agencies involved.

■ State financial assistance to districts is needed to construct buildings for the multihandicapped.

■ A roving film crew from the State Department should be sent out to film exemplary programs and facilities and make the films available to districts. Inexpensive 8mm movies or 35mm slides and brief descriptions could be used, and would help everyone in the sharing of ideas. Copies of these films could be given to consultants to have available when visiting districts, to discuss such programs, or could be checked out by districts from a regional office.

■ Minimum basic classroom equipment lists for each area of exceptionality should be distributed by the state, as guidelines for the establishment of new classes.

■ Courses on the education of exceptional children should be included in general credential requirements, to acquaint classroom teachers with the various areas of exceptionality.

Dr. Phelan:

What is ESEA Title VI-A?

a. Provides for Federal grants (P.L. 89-750 amendment to P.L. 89-10 ESEA of 1965) to assist States to initiate, expand, and improve programs and projects of special education and related services for handicapped children at preschool, elementary and secondary school levels.

b. Provides funds for initial planning by states to carry out effectively the purposes of Title VI-A in future years. (Develop State Plan; establish procedures; manuals for information; directions, application forms; establish priorities; assist with implementation; etc.)

c. Makes provisions for the establishment of a new Bureau for the Handicapped in the U.S. Office of Education.

d. Establishes a National Advisory Committee and encourages establishment of state advisory committees on handicapped children to recommend administrative and operational procedures.

Who is Eligible?

a. All handicapped children as defined by California Law who are in preschool, elementary and secondary schools and not beyond grade twelve. This includes the mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, crippled, or other health impaired children who by reason thereof require special education and related services.

b. Local school districts and county superintendents' offices may apply to the State for grants. Handicapped children attending private schools must have the opportunity to receive the services and benefits of these programs or projects, although direct grants to private schools are not authorized.

c. State operated schools for the handicapped eligible for assistance under P.L. 89-313 may *not* receive funds under Title VI-A.

What Funds are Available?

a. This is a 100 per cent federally funded program; no local matching funds will be required.

b. Money is currently available for preliminary planning by the State Department of Education to employ personnel and to develop the State Plan.

c. Federal funds are allocated to each state for disbursement according to its State Plan. Approximately nine per cent of the national appropriation would be California's share. Original bill authorizes $150 million for fiscal year 1968. California could receive as much as $15 million if full authorization is allocated.*

d. Funding will be on the basis of approved proposals from local, county, regional and State educational agencies or any combination thereof.

Laws and Regulations Governing Title VI-A

a. The California State Plan is the design to administer and supervise the operation of programs and projects and the disbursement of the federal grant. It is a contractual agreement between the State and Federal governments for establishing State and local eligibility for funds.

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* Editor's Note: California received $1,106,581 for fiscal year 1967-68 to operate programs and projects to August 31, 1968.

b. Other rules and regulations come from the Act, Public Law 89-750 adding Title VI to ESEA; Regulations of Department of Health Education and Welfare; Guidelines and directives from Bureau for the Handicapped, U.S. Office of Education and Bureau of Program Development and Evaluation, California State Department of Education; and policies set by the National and State Advisory Committees.

What Projects can Title VI-A Fund?

a. The primary purpose is to benefit handicapped children rather than the school they attend.

b. Salaries and related costs, contractual services, equipment, travel, identification of students, parent counseling, etc.

c. Programs and projects of sufficient size, scope, and quality to affect a reasonable number of handicapped children and have a regional or statewide "spreading influence."

Procedure for Obtaining Grants

a. Educational agencies should plan programs and projects that initiate, expand, or improve education and related services for handicapped children that cannot be provided from any other source and that do not supplant existing services.

b. Applications should be submitted to Bureau of Program Development and Evaluation for review and to check compliance with intent to act, laws and regulations, and established priorities.

c. Applications will be reviewed by a team of experts from the field who will recommend approval or disapproval of the proposal.

d. The State Board of Education is the final approval authority.

e. Financing of Title VI-A programs will follow procedures similar to other Federal ESEA programs administered by the State.

Who to Contact for Information?

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SUMMARY: Converted Conviction

Wayne D. Lance, Ed.D.
Associate Professor of Education, University of Oregon

I suggest that you make note that in the year 1967 more than 200 concerned individuals gathered in Hollywood, California to probe for answers to a special problem. Note this date, for the writers of special education textbooks may someday record it among the significant historical events in the education of exceptional children. In 1967 the largest state in the United States took steps to break out of the traditional categories to marshall its forces to educate *all* children, regardless of labels, regardless of potential for "educability," regardless of the cost. The date 1967 is the begining of the end of "special education," because the day *will come* when *every* child will receive an educational experience that is special for his peculiar needs. When every child, be he gifted or slow, nearsighted or farsighted, or strong or weak of limb—when every child receives that educational experience designed for him, then we will have worked our way out of a specialized field and *every* teacher will be a *special* teacher.

The discussions in this conference may have left you frustrated. You clearly see the problems but the solutions seem obscure. Take heart, first of all, that we are gathered here, and that resources are available to begin to remove the obscurity from the solutions that are surely almost within our grasp. Be proud of the fact that your state is among the leaders—do not undersell your ability to make one of the outstanding educational contributions of the current decade.

And what are the reasons for my optimism?

- Because for once we are attempting to anticipate a need. Of course, the problem is already upon us and has been with us since the beginning of school programs, but nevertheless, we are really looking ahead.

- Because there are those in the State Department and districts and counties who are willing to lead the way even before the parents have organized into effective lobbying groups to force programs upon us as has so often been the case in the past.
- Because the Legislature has already expressed its support of realistic educational programs by passing an unprecedented number of enabling bills.
- Because of the Federal government has begun to muster its resources at a national level.
- Because the teacher in the classroom is ready and willing to adapt to the real needs of all children regardless of the handicapping condition.
- Because we can point to examples of what some districts are already accomplishing.

Philosophy

Allow me to make a brief statement of philosophy upon which I have based my following remarks. I believe that most of you share these convictions

- The public schools are responsible for educating all of the children of all the people for whom we can provide an adequate program. We must provide that education at the ages deemed most efficacious. If you believe this, it means we take some children earlier in life, we keep some children longer, and we define education in much broader terms than reading, writing, and arithmetic.
- The public schools are not able to provide the total service. We must look to, and work with other agencies and other professionals. Private enterprise can solve some problems more quickly and more efficiently than we can. Vocational rehabilitation can provide some services we are not equipped to provide. Social welfare has competencies that we do not possess. The medical profession fulfills a function that is outside our range of skills. Thus, we must cooperate.
- Children do not fit into discrete categories.

I am bound to leave out some outstanding ideas in putting together the multitude of words that have beeen spoken at this conference. I know that some original thoughts will not be credited to those who conceived them and gave them birth. Forgive me if your pet theory fails to be mentioned. Perhaps you expounded it over coffee (where many of the better exchanges actualy take place), and thus I failed to note it. Forgive me, too, if I suggest a "unique, innovative, exemplary approach" only to discover at a later date that you have been doing it for 27 years. There is much truth to the wisdom of Solomon when he stated in 977 B.C. that "that which is done is that which shall be done, and there is no new thing under the sun."

What are the problems confronting us regarding the multihandicapped child?

The Size of the Population

One of the goals of this Institute was to provide the State Department of Education with a firm picture of the number of multihandicapped children needing special education programs. This we have not been able to do. To do so will require an operational definition followed by intensive survey procedures. We have not, however, been a total failure in this respect, for we have all become aware of the relative immensity of the population to be served. Dr. Louis Cooper impressed upon us the seriousness of the Rubella epidemic of recent years. Of even more importance was Dr. Cooper's statement that what has happened before may happen again—perhaps not Rubella next time, because of the vaccine, but some other insidious disease may take its place.

Dr. Edgar Lowell provided some documented estimates suggesting that between 400 and 600 multihandicapped children will be coming of school age in California due to the Rubella epidemic. Add to these your "guess-ti-ments" of multihandicapped children presently in both private and public programs; those not in programs and waiting to be served; those in Developmental Centers and Day Care Centers who might better be placed in a multihandicapped program; those multihandicapped children in other special education programs who are not progressing; those presently in residential schools, but whose parents will bring them home when we establish schools in their communities; those who now live out of state, but who will move in when we establish programs; and add these all together and what do you have? A problem of some numerical significance and certainly of great social significance.

Parenthetically, may I add this note of concern. For every child infected by Rubella who has observable multihandicaps, there are three or four with a single handicap. They too will be in our schools. Of further concern are those children whose mothers had Rubella but where the clinical syndrome was not apparent. How many of these may later be classified as EH, i.e., have a minimal brain dysfunction? Our EH programs may possibly experience an unprecedented influx of children in 1971-72 or shortly thereafter.

An Operational Definition

The second problem concerns the "bugaboo" of definition. It is self-evident that you cannot ask county superintendents to send you numbers without stating explicitly who they are to count.

Anyone can write a definition and perhaps even a good operational one. But, if I have been sensitive to the speakers and the participants this past week and if I may reflect my own feelings, I think that we are reluctant to do so. As Dr. Donald Mahler so succinctly asked, "Do we need *another* category?" Since I am only stating problems, not solutions, let me defer further discussion of this topic.

The Complexity of Services

Within the brain of every special educator are the faculties for storage and retrieval. These same individuals are also quite capable of carrying on a process called communication. Unfortunately, I have yet to meet the educator so endowed that he functions efficiently enough to be a single source of information and dissemination to oversee an encompassing program for multihandicapped children, ages one day to 21 years in an urban setting of one million persons. I doubt that a person exists who can do this. Further, because of the bureaucratic nature of mid-20th century America, I doubt that there is any educational agency or any medical agency, acting alone, which can perform a coordinating function in a large urban area or on a state-wide basis. Services for the handicapped are complex. We become bogged down in trivia, we protect vested interests, we get our feelings hurt. As Dr. Cooper and others pointed out, there exists a great duplication of effort in evaluation and even in services for the handicapped. The left hand does not know what the right hand is doing, and who suffers?—the child and his parents. This problem may be summed up as one of communication. It includes the problems of poor follow-up, improper placement, and shopping around by parents.

Responsibility for Service

The fourth problem follows from the third. Who should assume responsibility for the multihandicapped? If the schools, then at what age? Should the schools assume responsibility for all these children regardless of the severity of the handicap? Should we take responsibility for early diagnosis and evaluation? How about parent therapy? Do we provide vocational education? Who pays for psychiatric treatment? The questions could go on.

Diagnosis and Appraisal

One of the "sacred cows" of special education has been the high allegiance given to the multidisciplinary team approach. You find it in nearly every textbook on exceptional children. Do you detect a trend away from the team approach? I heard this in discussion groups, and both Dr. Charles Gardipee, a medical doctor, and Dr. Thomas Jordan, an educator, clearly said we had better re-appraise our procedures.

The fifth problem then, is how do we organize to diagnose and evaluate the child?

Teacher Characteristics and Preparation and School Organization

Whence came the practitioners of the science and art of teaching the multihandicapped? How are they prepared? Who will prepare them? How will they be certified? As Dr. Edgar Lowell suggested, "How can we prevent the jeopardizing of the professional status of special education teachers if we force multihandicapped children upon them?" Or perhaps the contrary is true as Dr. Laurence Peter inferred: we may enhance the teacher's status by helping them to be successful with what had been considered a hopeless case.

Curriculum, Methods, and Materials

The seventh category of problems to be solved is quite straightforward. It deals with what we teach, how we teach, and the tools we use.

Implementation

Finally, as I enumerate the problems, we come to that category involving legislation and funding. I submit that if we solve the first seven groups of problems we will have developed such an ideal package that the necessary legislation will be easily written, and no assemblyman or senator will have cause to vote against it. As members of the legislature have requested repeatedly, "will you educators please form a consensus and let us know what it is you need?"

Recommendations

Problem Number 1: Size of the Population

Epidemiological studies should be conducted. This recommendation came from Dr. Jordan and he recommended studies by authorities in Scandinavian countries as illustrative of the procedures to be followed. Hopefully, such studies would give us a picture of the strengths and weaknesses in children as well as provide overall numbers. A suitable sampling procedure might be based on the model used in Georgia and reported by Wishik.[1]

The use of federal funds mights be investigated for such a sampling study, perhaps through Public Health. I submit that our data processing capabilities make this a feasible procedure. California Assembly Bill 46 bears upon this topic and must be noted by county offices.

A further recommendation coming from the discussion groups points out the need for continual projections in order that colleges and universities, school agencies, and other agencies, might be prepared for the yearly increase of multihandicapped children.

Problem Number 2: Definition

During the past few days, if there is one idea that stands out because of its repetition by participants and trainees, it is this: children cannot be neatly packaged and labeled with a handicap and be considered to have only that one handicapping condition. Many of our children in special programs now have multihandicaps. For some of these, as Dr. Peter stated, the second and third handicaps may merely be of medical interest, for if we get the stimuli to the child, we have, for educational purposes, eliminated that handicap. For other children, each of the handicaps may have real educational significance. They key is educational significance. As Dr. Jordan suggested, let us look at the *instructional handicaps*, not the disease disability.

Let us asume for a moment that we determine a definition of multihandicap and then write it into law. We then will establish classes for the multihandicapped and probably develop a credential for teachers of the multihandicapped and the severely multihandicapped and therefore we need more legislation to provide for these differences. Thus, more definitions. Or perhaps someone suggests that we need a definition for the language impaired multihandicapped and the visually impaired multihandicapped, and of course, some combination of those two. Before we know it we will be ahead of New Jersey and have more than their eleven categories of handicaps.

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[1] Wishik, S. M. Handicapped Children in Georgia: A Study of prevalence, disability, needs, and resources. *Amer. Journal of Public Health*, 1956, *46*, 195-203.

If we really wish to soften the categories, i.e., remove the obstructions from the categories, we cannot do it by writing another definition. Rather, we do it by re-appraising our present categories, as defined, and rewriting them according to some conceptual framework. Perhaps we will go Dr. Mahler's route and view a handicap as a consequence—where this leads in terms of definitions I am not sure, but as he suggests, we might then begin to view patterns and degrees of variation.

Or, do we use a framework like Dr. Frank Hewett's, "Developmental Sequence of Educational Goals?" This might be a way to view children and to group them based on level of attainment.

The development of a taxonomy of classroom behavior thereby resulting in a classification of children by the ways they behave would be Dr. Jordan's approach.

Because the tone of this conference has been so positive on this topic, we must recommend the entire problem of categories and definition as one for further study. In the meantime, because some definition appears to be needed if we are to implement recommendations regarding a survey, may I suggest that we consider the multihandicapped child as that child under the age of 21 who is not presently in a program because he fails to meet the criteria for entrance, or who is in a program but is considered to be misplaced by some predetermined criteria. This gets a little sticky, but at least would provide a basis for further planning.

Do not be discouraged because we failed to operationalize a definition. Be *encouraged* that we looked so carefully at ourselves and are willing to search for better ways of classifying children for instruction purposes.

Problem Number 3: The Complexity of Services

The total problem of the severely handicapped child is a complex one to solve. We in education cannot solve it alone. We cannot provide services from cradle to the grave. Because we will be working with these individuals for at least 16 or more years of their lives we have a responsibility for exploring means of cooperation with those who can provide other services. We must not undercut private agencies in our enthusiasm to provide services, but rather dovetail one service into other services.

Apparently, if our discussion groups have been representative of the total group, I sense a desire to explore ways of working under a larger "umbrella" agency, an agency capable of viewing the total spectrum. Perhaps, as some have suggested, the Regional Diagnostic Center for the Mentally Retarded could be expanded in number and in staff and thence could accept children with all handicaps. Perhaps, as is the case in some communities, we could establish coordinating councils of professional agencies.

Consider this recommendation. As you know, industry is being involved in the solution of many municipal problems. Mayor John Lindsay is calling in the Rand Corporation in New York. The Ford Foundation just gave Los Angeles $300,000 to study the use of computer systems in solving municipal problems. Would the same foundation provide a suitable sum to study the use of a systems approach toward the solution of the problem in question? I am not suggesting that industry become involved in the education of the multihandicapped, but that they might provide a system for coordinating hundreds of agencies into a workable team. Perhaps we need a Governor's Commission on the multihandicapped, even as we had such a commission on the mentally retarded.

Problem Number 4: Responsibility for Service

A decade or more ago there was considerable debate in education circles about the appropriateness of TMR children being trained in the public schools. You hear little of this debate in 1967, particularly in California.

California decided long ago that its responsibility to handicapped children did not stop with only those capable of achieving success in traditional academic programs. The recent expansion of Development Centers has reinforced this philosophy. Public education has already assumed responsibility for most of the handicapped. In some cases, we have dropped the age to three years. I find California Assembly Bill 2005 very exciting—do you realize that experimental programs for deaf and hard-of-hearing children as young as 18 months are authorized? It is legislation like this that makes me proud to have been a Californian.

But, we cannot be content with these achievements. The fact is there are multihandicapped children by the scores not in programs and the numbers are soon to increase. I submit that because the public schools are the educational arm of the state we have the responsibility for educating every child capable of profiting from instruction. If this means accepting certain multihandicapped children at one year or 18 months, then let us accept them. If a social worker and public health nurse can better meet the needs of the infant and young child, then by all means allow them to do so.

The recommendations growing out of this discussion do not deal with "*do* we accept the multihandicapped"—that has been decided in the affirmative. Rather, we should recommend that the Development Centers for Handicapped Minors continue to be expanded until every eligible child in the state is enrolled; that because these Development Centers have an educational function they should be funded as adequately as other educational programs and should have the necessary teaching and therapy staff to carry out this function; and that the age of admittance should be carefully studied for possible downward revision.

Further, the tenor of the participants of this Institute appears to point to a recommendation suggesting that the State Department continue to explore the means by which multihandicapped children may be accommodated in both existing programs, and where necessary, in other types of school programs.

Problem Number 5: Diagnosis and Appraisal

I am rather certain that those who spoke critically of the procedures followed by some multidisciplinary teams in the diagnosis and appraisal of children were not necessarily recommending that we abandon those teams. I hope that the following recommendations reflect what the speakers had in mind.

- The teams charged with the responsibility for evaluating children should be functioning under an organizational structure whereby they are able to direct parents to *service* once the process of diagnosis has begun.
- Procedures should be implemented whereby the appropriate team members may continue the evaluation process over a period of months or years.
- Records should be reproduced in such a manner that they will be available to all team members and appropriate agencies without the need for duplication of services.
- In matters of educational placement, the educationally oriented members of the team should be responsible for decision making.
- For some children, long term appraisal should take place in a residential school patterned after the two schools for neurologically handicapped children in California.

Problem Number 6: School Organization and Teacher Preparation

Several excellent programs for the multihandicapped have been described by participants this week. Possible organizational patterns can be classified into four or five types as follows; all of which may be suitable for different districts, depending on urban-rural features, etc.

- The multihandicapped child is placed in an ordinary class or a special class and is provided with the services of an itinerant teacher or teachers who work with him a given time each day or week in his classroom or in a resource room. For example, a blind-retarded child is enrolled in an EMR class and is instructed by a teacher of the VH for an hour per day.
- A centralized school contains classes for children with several handicaps. Teachers prepared for teaching different handicaps assist one another or follow a team approach when working with the multihandicapped child. This school may have one or more classes for each category.
- The teacher is prepared to deal with several handicapping conditions and the multihandicapped child is placed in the class deemed most appropriate for him. The criteria for placement is not necessarily homogeneity based on handicap, but a match of teacher abilities plus child needs plus environmental conditions. A deaf-CP child is placed with Mr. Smith, not because Mr. Smith has a class of deaf-CP children, but because Mr. Smith is skilled in working with these two handicaps, other children in the class are compatible with this child, and the services of a physical therapist are available.

- A residential school containing one or some combination of the first three arrangements. This plan is appropriate and necessary for rural areas and for children undergoing long term, intensive evaluation. These may, in some sense, also be a respite center to provide an adjustment period for parents and/or child.

- One of the above, but with additional services being provided by a private agency on a state reimbursed basis.

I will discuss teacher preparation programs briefly. Many participants have alluded to this topic, and of course it is basic to our whole discussion. I have not heard anyone seriously recommend a new program for teachers of the multihandicapped. What I have heard is an expression of enthusiasm for overhauling *existing* programs. The plea from Drs. Schwartz, Peter, Hewett, Mahler, and others has been in the direction of prescriptive-clinical teacher preparation programs. Different terminology has been advanced, but it seems to me that it can be summarized that the threads running through preparation programs for *all* special education teachers are so similar that we should be able to develop one basic program for teachers of the handicapped.

Dr. Swartz laid it out quite well in a recent issue of *Exceptional Children*, and I personally believe that we *can* prepare the multipurpose special education teacher.

Some recommendations directed toward my former associates in the California Association of Professors of Special Education are as follows:

- If you have not already done so, place the topic of the preparation of teachers of the multihandicapped on your agenda for thorough study.

- Cooperate in a statewide plan to carry out and expand the intent of AB 65 regarding laboratory classes for exceptional children. Consider the establishment of at least one lab class under this bill for multihandicapped children, preferably available to two or more colleges.

- Cooperate on the development of experimental programs for preparing teachers of exceptional children. If I am not mistaken, the State Board of Education is ready and willing, in fact, very anxious for experimental teacher preparation programs. We need not plead credential requirements as an inhibiting factor!

- Approach the USOE as a united group to solicit federal funds for program development and traineeships and fellowships to strengthen *new* approaches to teacher preparation.

Another comment about professional personnel. There is a desperate need for a person in many districts, who, for lack of a better term, we can call a "media-curriculum specialist-programmer." This is the person capable of assisting the clinical teacher in prescriptive teaching. This person carefully observes a given handicapped child, reviews recent diagnostic tests, observes the teacher in action, and then helps the teacher write the educational prescription. In some cases, he programs the lessons and obtains the appropriate instructional media.

We must not conclude this section on teacher preparation without including recommendations on recruitment.

- The various professional groups interested in the multihandicapped, including CAPSE should work closely with the State Department in carrying out the intent of Assembly Concurrent Resolution Number 2 regarding scholarship programs.

- These same professional groups should promote the organization and give support to clubs for high school youth, e.g. *Project Understanding* in the Grossmont District and *Delta S* in Stockton. Further, professional organizations should undertake a concerted campaign to contact every future teachers club in every high school at least once a year for the purpose of informing students of the challenges in special education.

Problem Number 7: Curriculum, Methods, and Materials

Dr. Robert Naslund presented an excellent rationale for curriculum development. Dr. Peter and Dr. Hewett had much to say about method. And Dr. Reed described the assistance we may expect in relation to materials.

As for recommendations, I believe that we can summarize them as follows:

- Teachers should be involved in the process of developing guidelines and curriculum for multihandicapped children.

- Of prime importance is the tailoring of the program to the child, not the child to the program.

- Efforts should be made to encourage the research and development centers to study curriculum for the multihandicapped.

- The CEC Project on Architectural Design of Facilities should be contacted for assistance in designing school plants for the multihandicapped.

- Innovative methods, several of which have been discussed at this conference, should be evaluated for appropriateness for use with the multihandicapped.

- My personal addition is that the Instructional Materials Centers for Handicapped Children and Youth should give increasing attention to the acquisition, development, and evaluation of materials for the multihandicapped. At the same time, teachers should make their own teacher-developed materials available to the SEIMC for evaluation, reproduction, and distribution.

Problem Number 8: Implementation

Much has already been said about legislation which I will not repeat here. Much of it is self-evident after reviewing the before listed recommendations, and reports from the panels and discussion groups contain references to it.

The Legislature has already gone far in carrying out the will of the people. Title VI provides great hope for the handicapped children of this state and nation.

There is much that we can do already under existing legislation—but there is still a ways to go. Those of us gathered here this week are the ones who will provide the impetus for eventual fulfillment of our professional responsibility to see that every child in this state receives his due.

I leave here with a conviction that the multihandicapped deserve our attention. I trust that you share this conviction.

It was Carlyle who said:
"Conviction is Worthless Unless It Is Converted into Conduct."